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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE
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 FOUNDED 1875

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

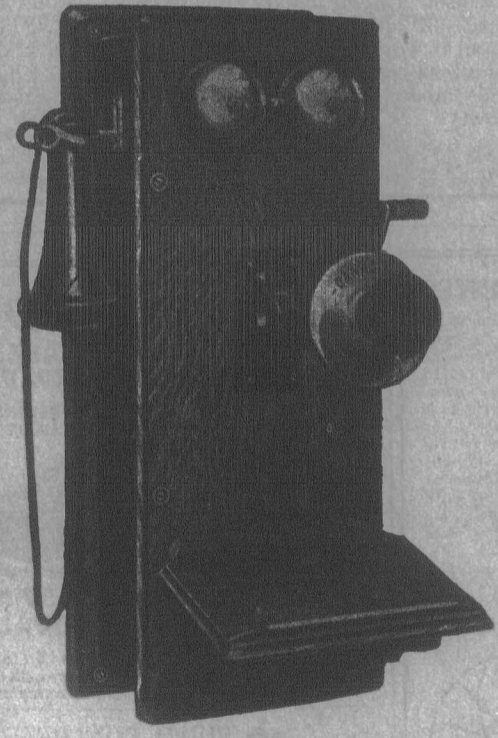
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Vol. LII.

LONDON, ONTARIO, AUGUST 16, 1917.

No. 1299

These high-grade telephones are Canadian-made



SCORES of Independent Telephone Systems in operation in Canada have used thousands of our telephones during the past twelve years, and have found them entirely satisfactory.

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Canadian Independent Telephone Co., Limited

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ARMS & UNITION

WILL SILO FILLING TIME FIND YOU READY?

SILO FILLING time will soon be here—and the Canadian Farmer is depending upon the corn crop this year as never before. It is your duty, and it will mean more money in your pocket to use every effort to get ALL the FEEDING VALUE out of every stalk of corn.

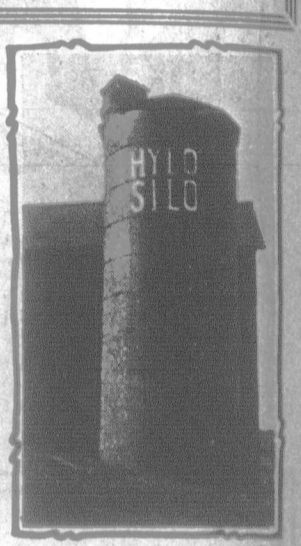
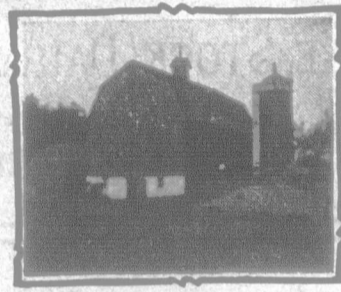
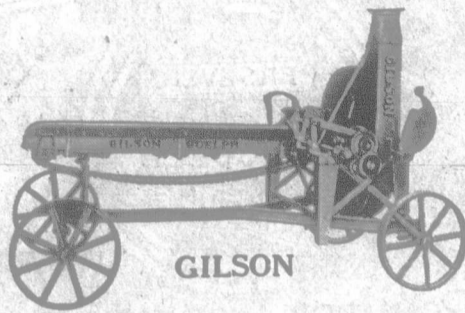
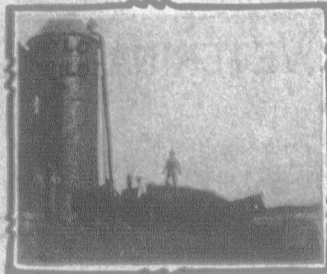
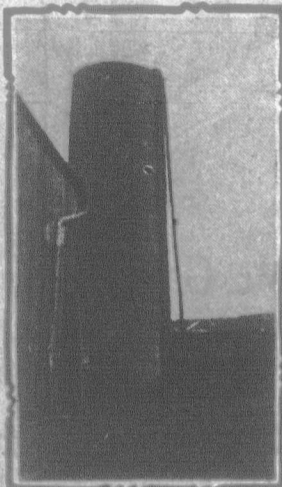
The most important thing is to silo your corn crop when it possesses the GREATEST FOOD VALUE. If you get a Gilson Silo Filler NGW—before we are sold out—you will fill your own silo. This means that you will silo your own corn when it is just right for silage. Be independent of the cutter gang. You do not need big power to operate the "Gilson". Your own farm engine—4 h.p. or larger—will do the work.

WRITE FOR FREE SILO FILLER BOOK TO-DAY
It tells the Gilson Story from start to finish—points out the advantages of design, and describes the all-metal construction in such a way that you will understand why our machines cut and elevate more silage with less power than any other Blower Cutter. This is a matter of dollars and cents to you. A Gilson Silo Filler will, in all probability, pay for itself the first season. Beware of Imitations and Infringements.

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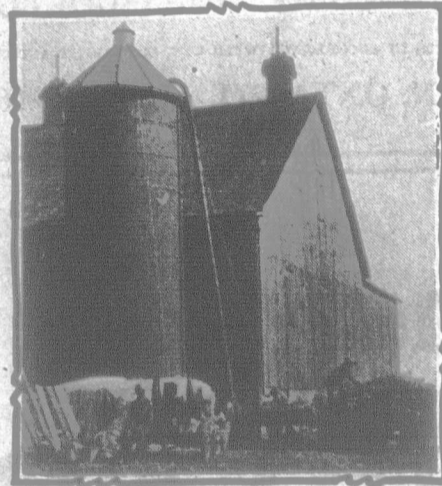
You need this SILO FILLER

It is as much a part of your Farm Equipment as your Binder or Plow.



"My Silo is 40' high," writes FRANK BOLTON, Guelph, Ont., "but my 8 h.p. engine which I purchased from you nine years ago operates my 13' ensilage cutter splendidly, sending corn over the top in a steady stream. This outfit is the admiration of all who see it."

JOHN H. MURRAY, Sea View Farm, Cap La Ronde, C.B., N.S., writes: "Enclosed find picture of my 10' Gilson Silo Filler, 6 h.p. Gilson Engine and 30' Gilson Hylo Silo. I filled my silo with oats, peas and vetch, and it is coming out fine and not a bit spoiled. My outfit does splendid work and I am very well pleased with it."



FRED HEUTHER'S farm at Kitchener, Ont., showing his 8 h.p. Gilson Engine and 13' Gilson Ensilage Cutter filling his 30' Gilson Hylo Silo.

JACOB N. HAIST, Ridgeville, Ont., writes: "The enclosed picture shows our 13' Silo Filler and 12 h.p. Gilson Engine hard at work filling our silo. This outfit works beautifully and is as much a part of every farm as a binder or mower."

M. I. ADOLPH, of Gowans-town, Ont., declares that his silo filling outfit "is a source of real satisfaction and profit. I would not want to be without my 10' Gilson Silo Filler, 8 h.p. Gilson Engine and 12x30' Gilson Hylo Silo. I have used it for three seasons, and have had practically no trouble—it was always ready when wanted."

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POWER plus SERVICE
After 9 years of Service
Mr. H. TUTTON, of Branchton, Ont., writes:
Gentlemen—As my 6 h.p. Engine has been such a big saving to me during the 9 years I have had it, I thought I would write you. I have 275 acres, keep a lot of stock, and do all my own chopping, feed cutting, wood sawing, etc. My engine is as good as new n.w., and compared with other makes around me, I am perfectly satisfied with its superior fuel economy, power and reliability.
Write for FREE catalogue and prices.
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"MONARCH" ENSILAGE CUTTER

The ideal straw and ensilage cutter, being strong and simple, fast and durable. The "MONARCH" will stand all the heavy work and hard knocks that a machine of this type always receives.

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See it at Toronto and London Exhibitions. At both fairs we will be in the same locations as last year, and cordially invite your visit and inspection.

Canadian Engines Limited, Dunnville, Ontario

OUR REAL GUARANTEE

We guarantee this machine to be made of first-class material by first-class workmen, and that it will cut and elevate as much or more than any other of the same horse-power. If any part breaks during the first year because of inferior material or workmanship, we replace it free, if sent to us, freight or express prepaid, for inspection.



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Cockshutt Catalogue
will give you valuable farming hints and shows the full line of Cockshutt and Frost & Wood Implements. Write for a copy to-day.
Cockshutt Plow Co., Ltd., Brantford, Ont.

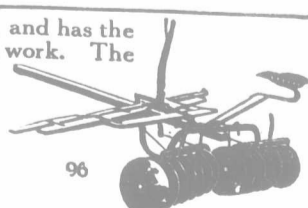
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CHOOSE the Viking Cream Separator and you save money on the first cost; you save money on repairs. You get a larger capacity with fewer parts to wash and fewer parts to wear out.
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VIKING Cream Separators of Quality (8)



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T. E. BISSELL COMPANY, LTD., ELORA, ONT.



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DIGS YOUR DITCHES GRADES YOUR ROADS
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World's Largest Makers of Concrete Machinery

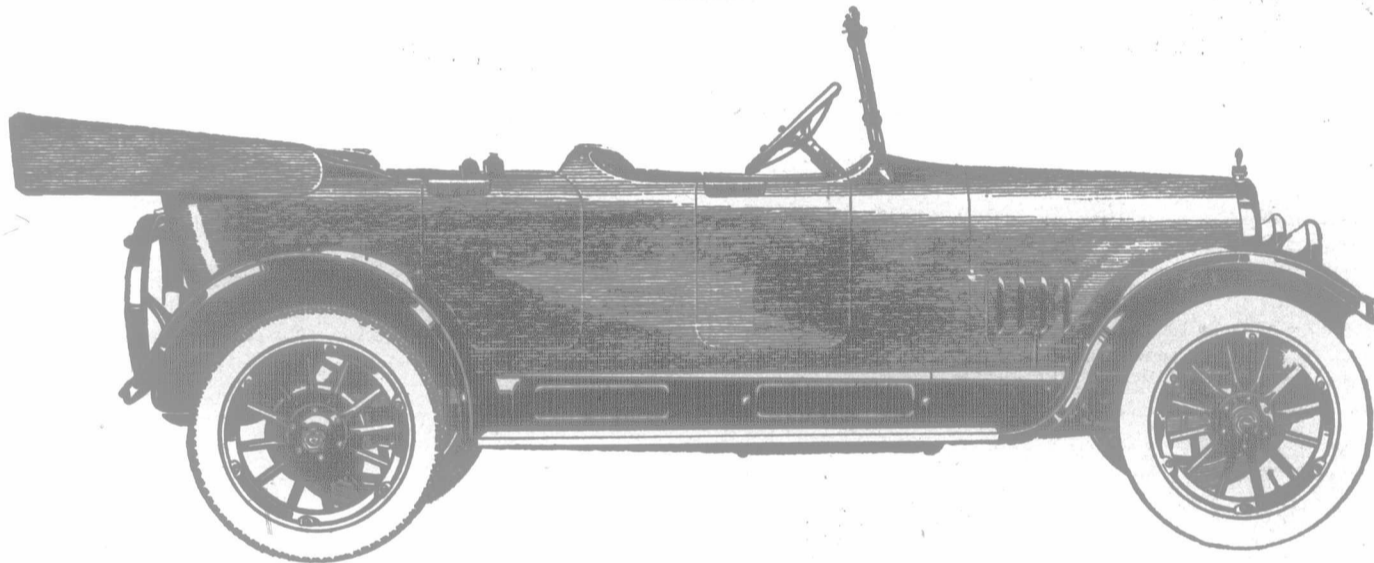
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Sturdy Light Weight—Abundant Power

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Think what that means.

Economy and durability in combination with six cylinder advantages at last an accomplished fact.

Don't ask any more why you can't get a durable light weight six with real six cylinder performance.

You can—it's this new Willys Six.

By scientific designing with the aid of our great experience in building

Sixes, we have produced a *lighter car* without sacrificing sturdiness.

Its forty-five horsepower motor combined with its light weight, makes it a wonderful performer.

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We want you to know, too, what a wonder the New Willys Six is from the standpoint of easy riding and easy handling.

Also we want you to know what a beautiful car it is—long, sweeping graceful lines—one of the year's most advanced models—a perfect beauty.

And the price!—\$1815 complete!

It's the Six you've longed for—go in and see it now—before our dealers are loaded with orders for more Willys Sixes than they can get.

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Alpha Gas Engines are made in eleven sizes, 2 to 28 H. P., and each size is furnished in stationary, semi-portable, or portable style, with hopper or tank-cooled cylinder.

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—the most profitable engine ever offered at the price—low first cost, low fuel cost—low maintenance cost. A marvel for farm work.

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In the making of memorial tablets, the Dennis Company brings to the task a wealth of art-knowledge, a store of experience, and a sense of the fitness of things peculiarly valuable when dealing with this delicate subject.

Write for full information and estimates on brass or bronze memorial tablets, shields, church furniture, etc., to

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!! YOUNG MEN ON THE FARM !! !! WHO CANNOT GO TO WAR !!

Canada Must Have Greater Agricultural Production.
Canada Needs Men Trained in the Best Agricultural Practices.

You will be of greater value to your country and to yourself if you acquire all available information regarding your business as a farmer.

You can obtain this information during the fall and winter months at the

Ontario Agricultural College, Guelph

The College Term.—The college opens September 21st and closes April 12th. This is convenient for most farm boys, as the hardest work of the summer is completed before the commencement of the term, and students can return to their homes for the spring seeding.

Courses.—The **Two-Year Course** is particularly designed for young men intending to be good, practical farmers. It includes studies which are of practical value in all the work of the farm. The **Four-Year Course** for the degree of B.S.A. is a two-year continuation of the two-year course.

Expenses.—In order to encourage young men to attend the college, the fees are fixed at the lowest possible figure.

Board \$4.00 per week.

Tuition Fee \$20.00 per year.

Public school education is sufficient for admission.

College Opens September 21st

Write for a calendar giving full particulars.

G. C. CREELMAN, B.S.A., LL.D., President

The Farmer's Advocate and Home Magazine

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ESTABLISHED
1866

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LII.

LONDON, ONTARIO, AUGUST 16, 1917.

1299

EDITORIAL.

We wanted heat and we got it.

A country of Knights will surely become be-nighted.

If the Russians are not coming they are going, and always fast.

There is still a big task to be done in Europe. Each must do his or her part.

Experimental work in field crops is a matter for Provincial control in so far as possible.

Where are all those men our City Cousins were promising to send out to help harvest the crop? Are they in the lake or in the field?

Governments have a habit of doing things by halves, but in the railway problem many think they are cutting down their efforts to quarters.

Get the wheat land ready early. Those who plowed early last year got their wheat in; those who didn't have no fall wheat this harvest.

There are many evidences of the shortage of labor in Ontario, one of them being the increased numbers of women working in the fields.

The farmer's summer resort is the harvest field; so should it be for many an able-bodied city man who knows how to handle a pitch fork.

Canada welcomes a graduated income tax, but wants no loopholes to let excess profits slip by without paying their just share of the war expenditure.

The president of the Canadian National Exhibition has decided to add a class for triplets to the annual baby show at the fair. Evidently he forgets all about the H. C. of L.

The day of the small tractor dawns and farmers expect more of our governments than merely buying tractors to hire out to them at cost. There is a better way to hasten their introduction.

Keep cool. Drink lemonade, a little lime juice, or oatmeal water in place of so much cold water. It will prove more refreshing and not so hard on the digestion. We can get along very well without beer in this country.

A familiar sign appearing outside garages—Free Air—How would it apply over the House of Commons if the first word were changed to Costly, and then in keeping with the weather the word "hot" were inserted to make it timely—Costly Hot Air?

Cultivation and corn crops go together. Keep going through the crop as long as possible. It got a late start this year and something must be done to make up for lost time. There is nothing like the cultivator. It has made many a good finish out of an unsatisfactory start.

We would like to show some of those misinformed agitators, who not so very long ago were busy at no work heavier than telling farm women what they should do, just what the women on the farms are doing. There might be a few hints as to thrift and war service for the agitators. A trip through Ontario reveals a number of women working at the harvest and all busy with their end of the farm prosperity in the homes.

The Bankers' Competition.

The Dominion Department of Agriculture Live Stock Branch have been endeavoring, and not without a measure of success, to interest Canadian bankers in farming generally, and in the value of live-stock farming particularly. We understand that through the efforts of the Branch arrangements were made some months ago which turned a considerable number of unfinished cattle back to Western farmers to be finished. It was a matter of financing the farmer so that he could handle the stock. This undoubtedly was a wise and profitable move. But the latest announcement pertaining to the activities of the Branch and the banks reveals a rather peculiar arrangement. The banks, in co-operation with the Dominion Department of Agriculture, are offering prizes to boys and girls who exhibit calves and pigs at local fall fairs. The object of the competition is good, viz., to encourage the conservation of good young stock, to further interest the boys and girls in the live stock of the farm, and to develop a closer connection between the activities of the branch bank and the business of farming. This is all right, but the petition is known as the "Canadian Bankers' Competition," and the money awarded as "The Canadian Bankers' Prizes." These terms are taken from the official memorandum sent out to each branch bank manager in which the suggestion is made that local newspapers would likely be liberal in the matter of free reading notices, and which contains the further salve for the readers in the farm home: "When a great institution like a bank takes a practical interest in the live-stock industry of the district, the farm boy will be led to view the matter from a standpoint entirely different from the one to which he has been accustomed."

Readers who go into the matter will wonder why the public money in the hands of the Department of Agriculture should be expended to give free advertising to the banks all over Canada, and to teach the people of the rural districts to look with favor upon an institution which hitherto has expended little, if any, effort to aid them in their work toward a bigger, better and more prosperous agriculture. If the banks were really desirous of doing something for the live-stock or farming industry, why didn't they put up all the money? They have made enough out of the rural districts to warrant the expenditure. The importance of live stock in agriculture and the value of agriculture to their business would justify them in going the whole distance. If the Live Stock Branch desired to do something why didn't they do it and take the credit for it? The banks have no right to accept the people's money from the Agricultural Department and call the competition "The Canadian Bankers' Competition." Nothing is said in the printed circular, we presume put out at Government expense, to inform the public that half the expenditure is Government money which comes out of the people.

Is this all the bankers can do for the cornerstone of the foundation industry of Canada? The farmer and the farm boy have seen too much of the "big institution" stuff to be convinced by such methods. If the banks really want to do something, and we believe they do, why do they not boost the pure-bred sire in each district? They might set aside a fund to be known as cheap money for farmers to buy pure-bred sires. Down in the States, we understand, a big textile firm has gone so far as to offer to purchase pure-bred rams to distribute to sheep owners to improve the quality of flock and fleece. Could not our banks do something worth while in promoting the pure-bred sire? Could not some system of long-term loans be devised to aid the stockman? Would it not be advisable to leave branch managers in one place long enough that they could get acquainted with the farmers doing business at the banks, and thus promote business through a better knowledge of character? Could not the short-term loan idea be

worked up to advantage, with stock or grain as security? We do not for one minute question the motives of the Live Stock Branch, or the banks, in this new venture, but it is obviously unfair for the banks to get the full credit when the people's own money pays half the shot, and it is foolish to state that the intelligent farm boy will have an entirely different viewpoint regarding farming simply because he happens to win five, four, three, two or one dollar as the case may be, a prize only half of which is paid by the bank and the other half by the people. It will take more than this paltry sum and the few mesmeric reading notices which may creep into the local papers free to change the viewpoint of the farmer and his boy and girl re both banks and agriculture. The Canadian Bankers' Association is taking a keen interest in the movement and well they might, for it is good business for them. Now, Mr. Banker, you can do better than this. Would you not like to get busy right now? Banks, The Live Stock Branch, the farmer—the nation would benefit from any movement which will put Canadian agriculture on a higher level through closer co-operation all around.

Publicity Of The Power Behind The Press.

From day to day in the ordinary conversation carried on between man and man, remarks none too complimentary to the press of our country are heard. There seems to be a growing feeling of unrest among the common people regarding the policy of some of the press, and to clear away any misapprehension we believe that Col. Currie's proposal that the names of those who control papers should be published should be followed out immediately. The stockholders of the publishing companies should have no objection to such a policy. It would safeguard free speech through the press of the country. It would remove all shadow of doubt from the minds of the people regarding the powers behind the publication, and the paper run in the interests of the people would benefit, while if any there be that are controlled by interests which would seek to prejudice public opinion they would be shown in their true light. Sometimes we hear talk of war profiteers, of monied interests, of cliques and classes controlling large portions of the press. It would be good for all concerned to dispel all the fears by letting in the light on the owners and controllers of the press of the country. It is done in the United States, and should be introduced here right now when many people seem anxious to know more about things generally. The safety of the people depends upon the freedom of the press, and the freedom of the press depends upon the ability to turn on the light.

A Start In Public Ownership Of Railways.

A start has been made in what everyone hopes is the last lap of the race for Government ownership and operation of Canada's railways. The Canadian Northern Railway, as recently announced, has been taken over by the Government which hands out a loan of \$7,500,000 to the Grand Trunk Pacific and allows all others to go on as before. People will commend the Government for having at least enough backbone to refuse to extend any more money to the C. N. R. while the road remained in private hands. Many there are who do not believe the scheme as announced goes far enough. Possibly it was all that could be carried at the moment, but eventually bolder strokes must come. The majority report of the commission appointed to go into the matter was not followed very closely. The Grand Trunk and G. T. P. have insufficient branch lines in the West according to the Drayton-Acworth

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"
Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s., in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.
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10. LETTERS intended for publication should be written on one side of the paper only.
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12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
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THE WILLIAM WELD COMPANY (Limited),
London, Canada.

report, and the C. N. R. is without these in the East. The Government arrangement will not remedy these conditions to the same extent as if all three roads had been taken over. However, now that a start has been made it is the duty of those in power to so arrange things as to absolutely eliminate all danger of political control or intrigue interfering with this new venture in public ownership, and to see to it that private interests of any class are not allowed to hamper operations so as to show public ownership in a bad light. The people's rights must be safeguarded against partyism and vested interests. A bad start would give Government ownership of railways a permanent black eye. As it is the Canadian people are disappointed that the Government has not seen fit to take over all roads according to the Drayton-Acworth report.

Nature's Diary

A. B. KLUGH, M.A.

This is the year of the "big run" of Sockeye Salmon in the Fraser River, it being a peculiarity of the Fraser that every fourth year, in the year following leap year, the Sockeye ascend in much greater numbers than in the preceding three years.

On the British Columbia coast there are five species of Salmon usually known in that province respectively as the Sockeye, Chinook, Coho, Humpback and Dog, though each species has several other common names. The Chinook and Coho are much esteemed for use in the fresh condition and certain quantities of all species are canned, but the great bulk of the canned salmon consists of Sockeye.

The name Sockeye is undoubtedly a corruption of the Indian name Sauqui. This species weighs from three to ten pounds, though specimens of seventeen pounds in weight are recorded. The average length is two feet. The general appearance of the fish can be seen from the figure. The adult Sockeyes as they occur in the sea are free from spots, the backs are a clear blue and the sides are silver. As they ascend the rivers to spawn their colors change, the upper parts and sides becoming deep carmine, those which ascend the furthest becoming the most highly colored. The color of the flesh is a deep red. The Sockeye spawns only in lakes or in the tributaries of lakes which form the head-waters of rivers running to the sea. Neither the size of the lake, its distance from the sea, nor its altitude are of importance. The fish will force their way through the rapids of the Fraser for hundreds of miles to the snow-

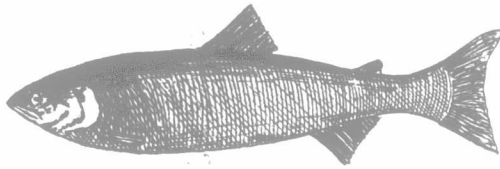
fed lakes at its head, and they likewise ascend the numerous little streams which drain small valleys and low-lying lakes but a few feet above sea-level.

The first Sockeyes enter the Fraser in April, but they do not ascend in large numbers till the latter part of July, and the run is at its height during the first ten days of August.

The spawning period extends from August to November, and after spawning the Sockeyes, like all the species of Pacific Salmon, die. In this respect the Pacific Salmon are entirely unlike the Atlantic Salmon, which lives to return to its spawning grounds again and again for several years.

The eggs are laid on gravel in shallow water and hatch in the fall or during the winter. The young live for a time on the stored food of the yolk-sac and then begin to feed on small crustaceans and aquatic insects. There is a wide variation in the length of time which the young Sockeyes spend in the lakes or streams in which they are hatched, some descending to the sea in their first year, some in their second and some in their third year. The great majority of the Fraser River Sockeyes run to the sea in their second year, thus having spent one full year in fresh water, while in other rivers, such as the Nass, most of the Sockeyes do not descend to the sea until their third year.

After they reach the sea they are completely lost sight of until they again enter the rivers to spawn, and it is supposed that they at once strike for deep water and remain there until mature. The age at which the Sockeye matures varies from three to seven years, the great majority maturing in four years, though in every run there are many five-year fish. From the time that they leave the sea until they spawn and die the Salmon take no food, and they live during this period on the



Sockeye Salmon.

stored fat and oil—upon those materials which make salmon such a rich article of human diet.

Many may wonder how it is possible to tell the age of a fish with accuracy. It is done by counting the rings on the scales, just as the woodsman counts the rings of a tree-trunk and thus ascertains its age. A fish-scale grows throughout the life of the fish, and this growth is marked by little rings. During the summer, when food is plentiful, the rings are comparatively wide apart, and during the winter, when food is scarcer, the rings are much closer together. Thus when examined under a low power of the microscope the areas of close rings show as dark bands and reveal at once through how many winters the fish has passed. The story which is told by the scales is a very important part of modern fishery investigations, as it not only enables us to tell the age of fishes, but also to separate different races of the same species, since some races which frequent certain particularly good feeding grounds make wider bands of "summer rings" than others. The size of the area of rings of the first summer's growth also gives us information as to the available food supply in the waters in which the fish was raised, information which may be extremely valuable in deciding upon locations for hatcheries.

(To be continued.)

Sandy Lectured on Moderation.

BY SANDY FRASER.

"It's a funny thing," says Jean to me the ither night, as I wis sittin' oot on the verandah takin' a smoke before goin' tae bed, "that people canna' be mair moderate an' canny in their ways than they are. Here's yersel' Sandy, for instance, all played oot wi' warkin' sae hard in the hot sun at the hay. Why dinna' ye tak' things a wee bit easier an' leave pairt o' the wark for tomorrow? But no, ye maun be racin' about as though this wis yer last day on earth, an' no preparations made for yer funeral. In a few years frae noo wha will ken the difference whether ye got a' yer hay in before the rain or not? 'Hoot, Jean,' says I, 'what wad ye think o' a mon that wad be sittin' doon for a smoke an' rest in the middle o' the afternoon when he had half a dozen loads ready to gae in, an' it beginnin' tae look like rain?'"

"There ye go," replied Jean, "frae one extreme tae the ither. Just like a' the rest o' humanity. There may be times when one has tae hurry a wee bit, maybe, but what I object tae, is gettin' the habit. And there doesn't seem tae be onything that mon can't turn intae a habit an' carry too far. This warkin' day an' night, for instance. It wis never intended tae be that way. A little wark is a' richt, an' sae is a guid deal o' sleep. Naebody can do guid wark gin they're short on sleep."

"Weel," says I, "I've known some pretty guid sleepers in my day, an' twa or three o' them landed in the poor-house."

"Na doot," answered Jean, "they were some mair o' yer extremists. Tak' it in ony line ye like, Sandy, ye'll find it warks oot the same way."

"What about eating," says I, "just tae draw her oot. 'Eating is a necessity,' she replied, "but the majority o' men turn it into a luxury. The fact that they need a certain amount o' food doesna' cut muckle o' a figure wi' them, but the fact that they want it, is o' vera conseederable importance. An' they're juist as

bad when it comes tae drinkin'. They all think they can tak' a wee drap, juist enough tae mak' them feel sort o' optimistic, ye ken, but first thing they're on their backs in the gutter, maybe; anither object lesson on the result o' gaein' a wee bit too far in one direction."

"Na doot," said I, "there are several ither things that yer rule o' moderation will apply to, that ye hae been thinkin' about. Ye might gie me the benefit o' yer reflections, gin ye dinna' think talkin' can be overdone like everything else."

"Na doot it can," says Jean, "but I've had naebody tae talk to a' day in the hoose, sae ye canna' say I'm an extremist in a conversational way. A' the same I think I've known some that were. There's some preachers I ken, an' maybe ye ken them as weel, that hae the remarkable ability o' talkin' for an hour at a time, maybe, an' when they're done ye canna' say that they've really said onything. An' there's a guid many ither people besides some preachers that talk a lot for naething. I'm no descendin' tae personalities noo," says she.

"Thank you," says I, "gae on wi' yer sermon."

"Weel," she continued, "I ken it's no easy thing tae steer yer course doon the middle o' the road an' no' get intae the ditch on either side, but it's tae learn how tae do that vera thing that we're sent into this auld earth. Sae it will dae us na harm tae gie the maitter some conseederation an' tae tak' a few notes by the way, as tae how the world in general is succeedin' in the task. Tak' for instance the general tendency o' mankind tae be gettin' mair money. A certain amount o' riches is a guid thing to hae, an' vera necessary in a civilized community, but when people get the idea that it is the mair important thing in the world, an' sacrifice health an' happiness an' what little morality they hae, a' for the sake o' a big bank account, then they're on the wrang track, an' it's time that some one hung oot a red flag, gin they're tae be kept frae endin' in a regular smash-up. There's naething mair handy an' useful than the dollar, but when ye get it that close tae yer eye that it shuts oot the sight o' a guid many ither things o' mair value, it's time ye were warned."

"Oh, I guess you're richt, a' richt," says I, "but what about some of the extremes that yer ain sex gae to? Or dae women keep the straight an' narrow way in a' things an' at a' times? Seems tae me there's a lot o' guid money wasted in fancy hats an' dresses by them, gin I'm ony judge."

"Maybe ye're a judge an' maybe not," says Jean, "but I'm willin' tae admit that there's a possibility o' goin' a wee bit too far along the line o' style an' tryin' tae follow the latest fashions at the expense o' comfort an' sometimes even o' respectability. It's na different tae onything else. Ye want tae keep yersel' guid an' decent lookin' wi'oot wastin' ower muckle o' yer hard earned money in the attempt. I'm thinkin' that a person should dress sae that they will no' be inclined tae gie the maitter anither thought, once the clothes are on their back. This means that naebody is gaein' tae tak' a second look at ye on account o' the way ye are dressed, an' that is what ony sensible mon or woman wants."

"One thing mair noo, while the spirit is movin' you," says I, as Jean stopped for breath, "gie us yer opinion on the social life o' the mon on the farm. Dae ye think, as a rule, he's wastin' ower muckle o' his time an' money in the theatres an' high-class restaurants o' the country, or is he inclined tae gae tae the ither extreme an' become a sort o' a hermit, wi' few interests an' fewer possibilities."

"Ye're trying tae joke about a serious subject," says Jean, shakin' her head. "Ye may no' think it, but the social problem on the farm is one that is gettin' harder tae solve ilka day. Scattered communities get the habit o' livin' by themselves, an' first thing they ken they want tae live that way. An' it's no' richt. A man must keep in touch wi' his fellowman gin he's goin' tae keep his mind clear an' active, sae that he may be of some service tae the world in return for his board an' keep. I'm unco' feared too, that things are no' gettin' muckle better along this line at the present time. It seems tae me Sandy," says Jean, "that people dinna' visit around the way they used to when we were young."

"That's what I hae been thinkin' mysel'," says I, "but maybe we carried the thing tae an extreme in those days. Dae ye mind how many guid nights' sleep I lost sittin' up wi' ye afore we were married. There wis plenty o' sociability around there in those days."

"Yes," says Jean, "but I dinna' think ye wad need tae call that gaein' tae an extreme. Ye were a kind o' a bashful chap, gin I remember richt."

"A' the same Jean," I said, "I'm thinkin' we should be classed as extremists. We went an' got married d'ye mind," says I.

Where is all this suitable farm help of which the farmer has heard so much from some city organizations and government officials? Some of the latter even expressed themselves as ready to don overalls but, like certain safety-first colonels, they seem to feel better in the attire they are more accustomed to wearing than in any sort of war-service uniform, overalls included.

If leaving second-growth red clover for seed, go through the field and pull any weeds which might be there. They are more easily separated from the clover in the field than after threshing.

THE HORSE.

Bone Diseases—IV

Ringbone.

Ringbone is a term applied to a bony deposit between the fetlock and coffin joints. The deposit may encircle the whole limb, or may be noticeable only on one or both sides, or in front only, but is called ringbone in all cases. Ringbone is of two kinds, viz., false and true. A false ringbone is an exostosis (a bony growth) on the bone between the fetlock and pastern joint, but it does not involve either joint, and does not cause lameness, except in very rare cases when it is very large. Some consider that it does not constitute unsoundness, but as there is a danger of the growth extending and involving a joint, a horse affected should be considered unsound.

A true ringbone is one in which either the pastern or coffin joint, or both, are involved. When the coffin joint is diseased it is called low ringbone; when the pastern joint is involved it is called high ringbone. By involving the articulation these cause more or less acute, obstinate, and in some cases incurable lameness. Ringbones whether high or low vary greatly in size, but the degree of lameness is not indicated by the size of the deposit. An animal with a very small enlargement may go very lame, while another with a much larger growth may show only slight lameness.

Causes.—In many cases there is a hereditary predisposition, and if the breeding of the animal affected can be traced back for several generations it will generally be found that an ancestor, more or less remote, suffered from the disease. The direct cause is usually concussion during progression. By this means inflammation is set up in the inner layer of the bone (called the cancellated tissue). This inflammation extends and involves the outer layer, (called the compact tissue); an exudate is thrown out; this becomes converted into bone, causing the visible enlargement. When a joint is involved the cartilage which covers the ends of the bones and is called "The articular cartilage," is destroyed and this causes acute lameness. While probably it is possible for a ringbone to result from direct external injury as a blow, kick, etc., it is very seldom that such occurs.

Symptoms.—In most cases lameness is irregular in the early stages. Sometimes lameness will be well marked, at others not so acute, and sometimes entirely absent. As the disease advances, and the joint or joints become more thoroughly involved, lameness becomes constant and more or less acute. In cases where the coffin or navicular joint (which is situated within the hoof) is diseased, lameness is often apparent for considerable time before any enlargement can be noticed, as there can be no visible enlargement until it extends up the pastern bone and shows above the hoof. Lameness in these cases is often hard to diagnose, as there is no visible cause, but the enlargement usually soon becomes apparent, when the diagnosis can be confirmed. The somewhat common idea that ringbone is due to the presence of some abnormal organ, or object called "the feeder" and that the removal of this feeder by cutting into the fetlock pad and dissecting out a quantity of fat or other tissue, is, of course, totally without foundation. Ringbone is purely a disease of bone; it originates in bone, and while it involves other tissues, and destroys them, it is essentially a bone disease and should be treated as such. The inflammatory action continues and the exudate thrown out becomes ossified (converted into bone). When the articular cartilage of a joint is involved it becomes destroyed, and as the process of ossification continues the bones of the joint become united (this process is called ankylosis) and of course cease to act as a joint, two or more bones being united into one. When ankylosis has become complete, inflammation subsides and lameness ceases. There may be faulty action, owing to a stiff joint, but pain is no longer present, and the animal will go practically sound, notwithstanding the partial or complete stiffness of the joint.

Treatment.—In treating a case of ringbone the practitioner aims at simply curing the lameness, he does not attempt to remove the enlargement. The enlargement is a growth of bone—the bone is diseased to its innermost parts, hence a little consideration should convince an intelligent man that it is not possible by any system of treatment to effect a removal of the enlargement. Treatment should be directed to the hastening on of the process of ankylosis, as, so long as this is not complete, inflammatory action will be present, and lameness will be shown. This is done by counter-irritation, either by blistering or firing and blistering, which produces a superficial irritation increases the internal inflammation and hastens the process of ankylosis, which is followed by a subsidence of inflammation and lameness. In quite young animals repeated blister-

ing may effect a cure, but in most cases it is wise to fire and blister at first. This should be done by a veterinarian. It is often noticed that the patient will go lame for a considerable time, sometimes for ten to twelve months, or even longer, after the operation, as the process mentioned is sometimes very slow. When a recovery has not taken place in ten to twelve months, it is well to fire again, and if this fails to effect a cure in reasonable time, we may decide that the case is incurable and the only means of removing the lameness is by the operation of neurotomy which consists in removing the nerve supply to the foot. The operation can be performed only by a veterinarian. It does not cure the disease, but removes lameness by removing sensation. As the process of repair and decay continues in the foot after the operation, in just the same manner as before, and the animal will not show symptoms of pain, hence is liable to become totally useless from various causes, it is not considered wise to operate until after the ordinary modes of treatment have failed.

WHIP.

LIVE STOCK.

Mixing Rations for Growing Pigs.

It frequently becomes necessary to purchase feeds for the swine in summer when the grain bins are low and no threshing has been done. Under such circumstances we have seen young pigs fed almost exclusively on shorts and slop or water. In the two latter liquid refreshments there is not much difference, except when the swill barrel becomes sour and filthy in which case the water is the better. Good shorts or middlings are splendid for young pigs, but the ration can be improved for swine, varying around six weeks to four months of age, by the addition of finely ground oats. Even though they must



Getting Acquainted.

be purchased, it will pay well to use them. Any class of live stock does better on a mixed ration and this truth can well be applied to the feeding of swine. As the hog develops, oat-and-barley chop and shorts are suitable; but even this mixture will be improved upon by the addition of say, one part of oil-cake meal. Where milk is available it should, of course, be used, but thousands of hogs are turned off annually that never see milk after being weaned. At the Ontario Agricultural College it has been found profitable to feed small quantities of tankage. Where milk is not obtainable, ten to twelve per cent. of the ration can consist of tankage without injury to the pigs, or to the efficiency of the ration.

Ontario's Graded Wool Sales.

Although the market is clamoring for wool in order to supply the extraordinary and abnormal demands upon it we must give considerable credit to the co-operative grading system in Ontario this year for the prices obtained and the strengthening influence it exerted on the trade. A few producers became somewhat dissatisfied because their cheques were not forthcoming at once and on account of shipments lost in transit. With the latter unfortunate circumstance the Executive had nothing whatever to do, except, in so far as possible, to trace and recover it.

That is only an example of what has often taken place in all lines of shipping since the railroads have been subjected to unusual demands upon their equipment and man power. As to the cheques, it was to be expected that some time must elapse between the receipt of the wool and payment for same. A quarter million pounds of wool had to be graded, sold, baled and shipped. This would have entailed a considerable amount of clerical work if the account had only been a single one, but there were 1,500 consignors, each of which

must receive a statement regarding his own product—weights, grades, prices, etc. This made a stupendous amount of clerical work which delayed payment somewhat, but then one should be willing to wait a little while for an additional remuneration averaging around 10 cents per pound.

We fully believe that had wool producers been aware of the advantages offered by the co-operative grading system, more would have patronized it. However, those in charge of the movement will have to make preparations to handle a much larger volume in 1918.

Exercising Show Sheep.

It is common at the fairs to see herdsmen and grooms exercising their cattle and horses, but shepherds are not so painstaking. Highly-fed sheep and lambs should be exercised mildly, and it is quite as important as with the horse or cattle beast. During the fitting period and the strain of the show season exercise should be a part of the daily routine, for only in this way can the entry be kept in the best physical condition. "Shepherd Boy" in the book on "Modern Sheep" writes thus:

"To keep your show animals in best possible condition they must be regularly exercised unless the weather is particularly hot. Early morning and late evening is the best time to attend to this work. No show sheep can keep healthy without proper exercise, but of course this must be of a gentle kind. Little trouble is experienced in exercising sheep after they have once become accustomed to the daily program. Of course, the rams and the ewes should be exercised separately. Where exercise is neglected sheep often become 'groggy,' that is, weak on their legs. It is just as important to exercise show sheep, which, of course, are very highly fed, as it is to exercise show horses, and everybody knows that a horse that is not working could not long keep in good health where his bill-of-fare is the same as when he is working hard.

"Rarely do show sheep, after a long railroad journey, take kindly to their feed for some time after being unloaded. This is due to broken rest attending such journeys. As soon as they have become well rested they take readily to their regular meals again. It is poor policy to drive them from the station to the fair grounds in very hot weather, especially if it be a long distance between the station and the grounds. On no account should they be driven any considerable distance in the heat of a mid-summer day."

The Difference in Sires.

In contributing a description of some of the impressive sires that came under his observation from 1863 to 1898 to Sinclair's History of Shorthorn Cattle, Robert Bruce, a British live-stock man of note, wrote as follows: "Not alone amongst cattle but amongst all breeds of our domestic animals, males and females occasionally crop up possessed of a power beyond others of transmitting a uniformity of type and character to their progeny. In many cases it is quite impossible to arrive at any satisfactory explanation as to the reason why this power should be possessed by one animal more than another. In the case of what is known as closely-bred animals the possession of prepotent power may be said to follow as a natural consequence, and many bulls that were bred at Kirklevington, Killerby, Warlaby, and Sittyton can be singled out as instances of the impressive power of the Bates, Booth and Cruickshank sires. When, however, we look into the matter we find that even amongst such closely-bred sires as those in the herds just named, animals have appeared having a power beyond others of leaving a uniform impress upon their progeny. Instances can be given when own brothers, equally good looking, were of very different values as sires, the one earning a reputation as being exceptionally good, and the other of being a very indifferent getter. Such instances are pointed to as sufficient reasons for the belief held by many breeders, that it is only after a sire has been used, and his stock seen, that a reliable estimate can be formed of his value."

Whitehall Sultan, as a Shorthorn, and Perfection Fairfax as a Hereford, have been living examples of prepotent sires on this side of the ocean. Their progeny even to the second and third generations, bear certain likenesses to their progenitors which render them of value to the breed and to the live-stock industry. Robert Bruce's words, however, emphasize the necessity of having a junior sire tried out before the old bull goes off the field of action. A young fellow may look all right, but he is a question mark until his get reveal the virtues inherent in him and which he is able to transmit.

Principal Appointed for Kemptville School.

W. J. Bell, B.S.A., has recently been appointed Principal of the Agricultural School which the Ontario Government is establishing at Kemptville for Eastern Ontario. Previous to taking the course at Guelph Mr. Bell taught school, and since graduating has been connected with the Institutes Branch of the Ontario Department of Agriculture and has done a good deal of instruction work in different sections of Ontario. He is recognized as a good live-stock man. His appointment takes effect September 1.

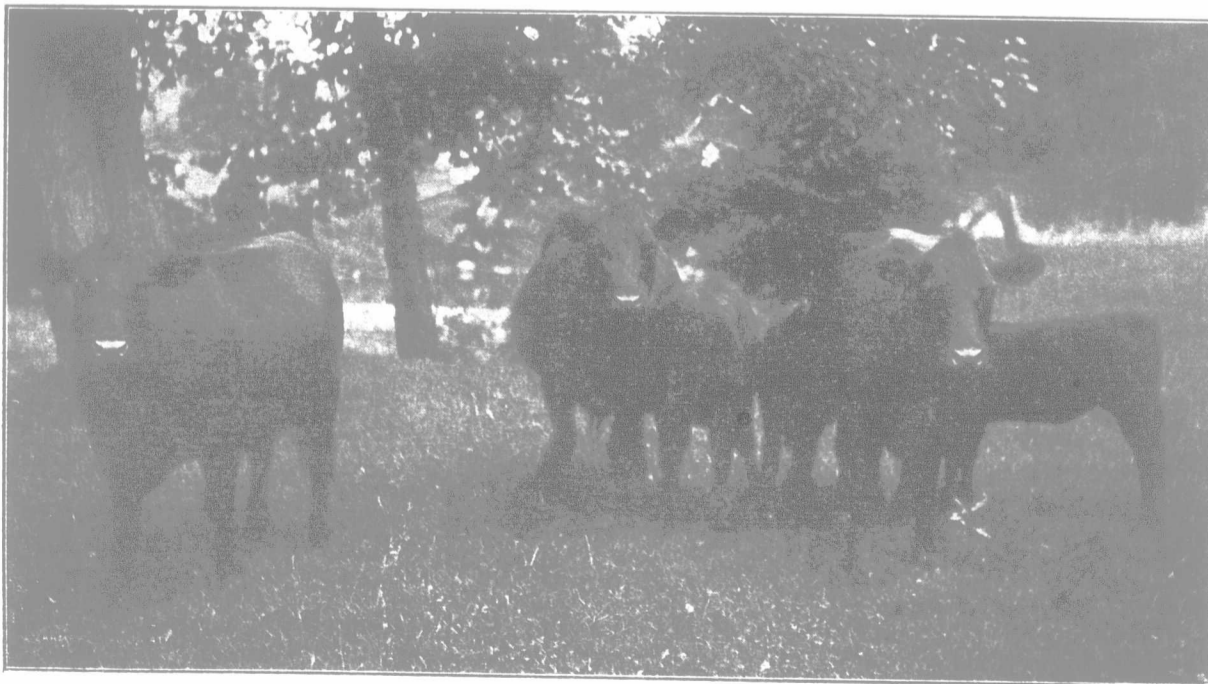
THE FARM.

Fall Cultivation

No sooner is the season's crop harvested than preparation must be made for the next. It used to be a general practice, and is yet in some sections, to gang-plow all stubble fields not seeded. Of late years a combination of circumstances rather than any single one is responsible for the change. Scarcity of help, together with silo filling, leaves little time for after-harvest cultivation. Unless the work is done soon after the crop is harvested the benefits accruing therefrom are lessened. Loosening the soil tends to the conservation of moisture and the germination of weed seeds. The young weed plants start growing, but their mission in life is nipped in the bud when they are later turned under with the plow to return to the soil part of the fertility they had drawn from it. Fall cultivation aids materially in solving the weed problem, especially where annual and biennial weeds have to be dealt with. This system may not eradicate persistent perennials but it weakens their vitality. The question of moisture conservation is not given very serious consideration by the majority of people. At some season of the year there is usually a greater rainfall than is required at the time, but it is generally followed by a prolonged drouth. As the woods are cleared, giving the wind a greater sweep, this condition is becoming more prevalent. The amount of evaporation from a field not covered with a crop or a dust mulch, which takes place on a bright, windy day, is greater than is generally supposed. A compact soil sheds rather than retains the rainfall, and the rainfall during the growing season is only about half of what is required by plants. Water must be held over in the soil. Where time is available it is believed advisable to give more fall cultivation than is generally practiced. Successful farmers have stated that they invariably get more bountiful returns where after-harvest cultivation is given than by leaving the stubble field until late fall before plowing. Another method which is giving good returns is the sowing of red clover with grain crops in the spring and then plowing the crop under in the fall. This adds humus and nitrogen to the soil.

Where the gang-plow is used the furrows should not be over two and one-half or three inches deep. The nearer the weed seeds are kept to the surface the more quickly they will germinate. We have seen fields gang-plowed and then nothing more done to them until they were ridged up in the fall. The effects of the work are partially lost unless a stroke or two of the harrows or cultivator are given. The latter aids in bringing root stalks of perennial plants to the surface. The soil is also pulverized, which helps to hold the moisture and makes later plowing much easier than it would have been had no cultivation been given. The effects will be noticed the following spring; as a rule it will be easier to make a good seed-bed. However, on certain soils it has been found that the use of the gang-plow tends to make the soil run together, which is undesirable. With four horses on a wide cultivator or disk, a stubble field can soon be gone over and the surface inch or two of soil loosened up. A couple of times over with these implements may do almost as satisfactory work as could be done with the gang-plow and certainly in less time.

Later in the season when the corn and most of the roots have been harvested the most of the deep plowing or ridging-up is done. By this time all the weeds which germinate in the fall have done so and some fields may be quite green. The jointer or skimmer might well be more generally used. While it may increase the draft on the horses slightly, it causes all weeds and grass to be completely buried in the furrow, which not only improves the appearance of the plowed field but tends toward the destruction of the weeds. Without the light the plants cannot survive long, consequently a more general use of the jointer would aid in keeping the fields freer from weeds and grass.



Doddies at Pasture.

In some districts the practice is to plow both sod and stubble from five to eight inches deep, depending on the soil, as soon as the work can be done after the crops are harvested. Fields so treated are then given frequent cultivation up to the time that winter sets in. No growth is allowed to get a start, thus many weeds are destroyed. The sod being plowed early has a better chance to rot than if plowed late in the fall, which makes it easier to prepare the seed-bed in the spring. The wide-shared cultivator is a very good implement to use late in the fall, as it leaves the soil in shallow ridges and gives the frost a better opportunity to pulverize it than if the surface were left flat. It is believed that many of our soils require more cultivation than they have been receiving in order to liberate the plant food which nature has provided. Where possible loosen the surface soon after the crops are harvested. What will destroy weeds and lessen the evaporation of moisture at most seasons of the year will work towards heavier yields of the cultivated crops.

Preparation For Fall Crops.

BY DR. C. A. ZAVITZ, O. A. C., Guelph, Ont.

The year's crop production depends in no small degree on the amount of crops sown in the autumn, and to the cultivation of the land before winter, preparatory to spring operations. In general practice in Ontario the autumn sown crops are few in number consisting mainly of winter wheat and winter rye. In addition to these, hairy vetches and winter barley are used to a very limited extent. Timothy and a few of the other grasses are occasionally sown with wheat in the autumn.

Experience and experiments have shown that winter rye is exceedingly hardy, and that fall wheat usually survives the winter. Winter barley is more tender than winter wheat, becoming more or less killed in about one-half of the winters, but when it survives it generally gives high returns. One variety of winter barley has been grown at the Ontario Agricultural College for twenty-four years, one of the objects being to secure a hardy strain. Timothy, Orchard Grass, Meadow Fescue and Tall Oat if sown with winter wheat early in September generally give satisfactory results. As red clover, alsike clover and alfalfa nearly always winter kill the sowing should be deferred until spring. These seeds can usually be sown to good advantage on the old snow, or still better on a fresh snow of one or two inches after the old snow has disappeared. When sown in this way no harrowing is required, and the clovers commence growth as soon as the weather conditions are favorable, and before the winter wheat or the winter rye has made much of a start.

Preparation of the Land.

Both winter wheat and winter rye do well on a summer fallow or on sod land, especially if the sod is clover. The land should be ploughed quite early in August and worked on the surface occasionally during the month. If stubble land is used for winter crops the soil should be worked on the surface as soon as possible after the spring grain is removed in order to conserve moisture and start the loose seeds to germinate, thus helping to clean the soil. This land should be ploughed if possible the last week in August, and in most cases immediately harrowed, rolled and again harrowed. This tends to pulverize the soil and conserve moisture in the making of a good seed bed.

Preparation of the Seed.

It is important, not only to properly prepare the soil, but also to use seed of high quality. In the results of fourteen varieties of winter wheat grown under conditions in each of twenty-one years there is an average difference of over nine bushels per acre per annum between Dawson's Golden Chaff which is the highest, and the Treadwell which is the lowest in yield of grain per acre. Both of these are white wheats, and have been grown extensively in Ontario. The Dawson's Golden Chaff, for the twenty-one year period, has given

an average of 51.3 bushels, the Imperial Amber 47.9 bushels, and the Early Genesee Giant 46.8 bushels per acre. The Imperial Amber is a red wheat of good milling quality although the straw is not quite as stiff as that of the Dawson's Golden Chaff. Other varieties which have given high yields per acre, and which resemble the Dawson's Golden Chaff in most characteristics are the American Banner and the American Wonder. The wheats of the Dawson's Golden Chaff class sell readily at good prices for the manufacture of breakfast foods and of pastry, but are not as high in bread-making qualities as some of the red wheats. The Kharkov, the Yaroslaf and the Crimean Red are all red, bearded wheats, with medium quality of straw, which yield fairly well and produce grain of excellent quality for bread production. These are comparatively new varieties and are not grown in general cultivation throughout Ontario.

In order to secure a winter wheat more suitable for growing in Ontario than any of the existing varieties, crosses have been made between the Dawson's Golden Chaff and some of the varieties of particularly high quality for bread production such as Crimean Red, Turkey Red, Tasmania Red, Bulgarian, Imperial Amber and Buda Pesth. In each of the past five years one of our new cross-breeds has surpassed all other named varieties in yield per acre. In the autumn of 1916 we distributed to the farmers of the Province, through the medium of the Ontario Agricultural and Experimental Union, the O. A. C. No. 104 winter wheat. This was a cross between the Dawson's Golden Chaff and the Bulgarian. It possesses largely the strength of straw, the yield per acre, and the beardless quality of the Dawson's Golden Chaff, and the good milling qualities and the color of the chaff of the Bulgarian, in fact the new hybrid has surpassed either of its parents in productiveness. We hope that this wheat will prove of good service in connection with the winter wheat production of Ontario. We expect to again distribute the O. A. C. No. 104 variety this autumn for co-operative experiments, but it is not yet grown in sufficient quantity for general cultivation in the larger fields.

It is important to sow large, plump, sound wheat of strong vitality, and which is free from weed seeds. Experiments have been conducted at the Ontario Agricultural College in seed selection with winter wheat for over a dozen years. The average results show an increase in yield of grain per acre of 6.8 bushels from large as compared with small seed, of 7.8 bushels from plump as compared with shrunken seed, and of 35.6 bushels from sound as compared with broken seed. Seed which was allowed to become thoroughly ripened before it was cut produced a greater yield in both grain and straw, and a heavier weight of grain per measured bushel than that produced from wheat which was cut at any one of four earlier stages of maturity. Winter wheat which becomes sprouted in the field before it is harvested is greatly weakened for seed purposes. Tests made of wheat which was more or less sprouted show the importance of using only sound seed. The following results give the average percentages of germination from each of four selections: skin over germ, unbroken, 94; skin over germ, broken, 76; sprouts one-quarter inch long, 30; and sprouts one inch long, 18. Not only were the sprouted seeds low in germination but the plants produced were very uneven in size and lacked vigor.

As the acreage of winter wheat is much lower than usual in Ontario this season we would suggest that those farmers who have a good crop should aim to thresh the grain as soon as possible after harvest and advertise the seed which they have for sale. By so doing they would render a real service to many other farmers who will be very desirous of securing good seed wheat in these abnormal times. All farmers who intend sowing winter wheat should get it ready early by thoroughly cleaning the grain so as to have seed of the best quality and ready for sowing at the most suitable time.

Treating Grain for Smut.

In each of ten years experiments have been conducted in treating winter wheat in different ways to prevent the development of stinking smut, and the results have been quite satisfactory. In the average of five years, untreated seed produced over four per cent. of smutted heads, while seed which was immersed for twenty minutes in a solution made by adding one pint of formalin to forty-two gallons of water produced a crop which was practically free from smut. This treatment is simple, cheap and effectual. The sprinkling process also gives fairly good results but is not quite as thorough in eradicating the smut entirely.

Dates of Sowing.

The dates of sowing winter crops vary considerably owing to the season and the condition of the land. Under average conditions it would probably be correct to state that winter wheat should be sown on stubble land about the first of September, on well prepared sod land during the first week of September, and on land which has been well summer-fallowed in the second week of September. If the land is very fertile and well adapted to wheat growing, the season of sowing may be later than where the conditions for growth are more severe. Winter rye will stand later seeding than winter wheat, and while it probably does the best to sow early in September it can often be sown from the middle to the end of the month with satisfactory results.

Conclusion.

Owing to the high price of wheat, and to the great value of this important crop to meet the requirements of food supply at the present time, farmers will undoubtedly aim to sow as large an acreage as possible this

autumn. Would it be too much, even in spite of the scarcity of labor, for the farmers of this Province to endeavor to sow one million acres of winter wheat for the coming year?

A Farmer's Views On Machinery Repairs.

EDITOR "THE FARMER'S ADVOCATE":

On the editorial page, 1194, in your issue of July

26, the article on "The Importance of Farm Machinery and Repairs" seems to call for a little comment. We understood you to say that the farmer was refused repairs because of a shortage of workmen and material. We do not think this the real reason. If the farmer had asked for a new horse-fork outfit it is our opinion he would have been supplied, and we believe that any manufacturer who can furnish new goods can furnish repairs if he wishes. The real reason, in our judgment, is that the farmer was refused repairs in order to make more profit out of him by selling him a complete new

outfit. This is no new thing. Some time ago a man in this locality was told that the plowshare he wanted could not be bought. There are plenty of plows like his in this locality. No reason is given. The only reason I can imagine is to force the sale of new plows. We think there are large sums of money fleeced out of the farmers by the simple process of refusing repairs. The meat-packing business is not the only one needing light turned on it.
Lincoln Co., Ont. L. C. WILDE.

Automobiles, Farm Machinery and Farm Motors.

Stop The Thieves.

We were in a certain Canadian city the other day and meeting a friend upon the street, enquired of him, in the customary fashion, "How are things going?" He replied that he could not speak of the situation in general, but that so far as his little automobile was concerned it was certainly "going, or at least had gone." He had been foolish enough to leave it running in front of an office building while he transacted some business, and upon his return to the curb, the machine had executed a disappearing act at the instance of some thief or "joy rider." Subsequently we found out that it took the police ten days or two weeks to locate the machine, and that when they found it considerable damage had been done to the fenders, the running boards and the power plant itself. There is a big lesson to be learned from this incident. Perhaps you are not familiar with the fact that a tremendous number of cars are stolen every summer season. A big percentage of them are returned to their owners, but of those that are brought back practically 90 per cent. are injured either slightly or greatly. Motorists themselves are to blame for this condition. In the first place, it is bad policy to leave your car running if you are going to be absent or it is going to be out of your sight any length of time. A car that is in operation can rapidly be put in gear and driven away. If the motor has been stalled, however, the amateur may not be able to start it or may fear to do so. Perhaps the best precaution is to buy a lock, of which there are a great many upon the market. Great care should also be taken in the selection of a point to leave your car. Most garages with big yards

will allow you to park your machine for a short time without charge, but if you are in a strange city, we would strongly suggest that you pay the small fee asked of any garage for an hour or two of storage. You are going to be safe under these circumstances. If owners will do everything possible to stop thieving and "joy riding," they will benefit themselves in just the same manner that they have done by combining to secure good roads. Insurance companies are giving a fair rate for theft insurance, but if automobile people persist in putting temptations in the way of thieves, insurance companies must of necessity raise their rates. In practically all the provinces of the Dominion there are penalties for the theft and for the joy riding of cars. By the latter expression we mean the driving away of a machine, not for the purpose of permanently retaining it, but for a pleasure trip with the intention of discarding it in some obscure spot. Most of the joy riders are young boys who do not see the lawlessness of their acts, and who some way or other have imbibed a feeling that their misdemeanor will be overlooked.

The man who pays for an automobile should be wise enough to figure that some system of locking it is a justifiable additional expense. There are a great many systems for leaving a car practically secure. In the higher priced models, keys are provided for locking the ignition switch and preventing anyone but an expert from moving the motor. It is true that this system of locking can be beaten by re-wiring, but in most cases the thief will not go to any such trouble. For the small cars, locks have been devised which cover the switch. There are also types which have combinations upon them and others which are worked with plugs. A

system that is a little bit cumbersome but nevertheless valuable, consists of a chain and tire lock. Those who are at all expert with a power plant can remove from it some effective part which instantly puts the balance of the mechanism out of commission. For instance, it is possible to take away the rotary switch from some electrical systems and so make it impossible for anyone to start the engine. Lever locks that cost very little money are useful, and can be procured almost anywhere, and there is the very common system of chaining a wheel to the bumper or to one of the springs. It is not necessary for us to explain all of the one hundred and one systems of tying up a car so that it cannot be easily operated, for any accessory garage or repair shop will explain all available methods to you. The point we wish to emphasize and make plain, is that the time has arrived when motorists should use every precaution to prevent theft in their own personal as well as the public's general interests.

We do not think the time is far distant when some kind of legislation will be enacted, making it necessary that all the vital knowledge of each machine sold to a retail buyer to be immediately registered within a certain radius. If information regarding such serials as the engine, body, frame, transmission, etc., were constantly available at all garages, no thief could make good in the hiding of a machine or in its retention unless he was able to keep it permanently in repair. Men who make a practice of stealing automobiles are not usually owners, and so sooner or later must be compelled to seek a garage. It is at this step of their criminal career that it is most easy to detect them and to return the lost motor to its proper owner. AUTO.

Canada's Young Farmers and Future Leaders.

Get all the Knowledge You Can.

"Knowledge is Power", says Bacon, and we have evidence of the fact in our everyday life. The educated men and women are the leaders in every walk of life. True, some of the most renowned are self-made men, or have not had the advantages of a higher education, but they have read and thought and studied until they have a firm grasp on their own business and a working knowledge of things in general. What might have been expected of these men had they been given the advantages of studying in our excellent halls of learning? Education makes the man, provided he uses it properly. But, sad to relate, some who have had the greatest opportunities have made a failure of life. Emerson says: "The world exists for the education of each man." If we have trained our eyes to observe and our minds to comprehend, we find something worth while at every turn, but too few have acquired the habit of seeing things and profiting thereby. The fault is in ourselves if we cease learning when we turn our backs on the public school. Without further attendance at school or college the information gained at public school unlocks the door to higher things if we but apply ourselves. Many who never secured a good public school education have made a success of their business and have been influential in their communities. However, if an opportunity is afforded to attend high school or college we believe it should be accepted. Knowledge is something which is easy to carry around, and which no man can take from you. Even though some information gained may seem useless, the time may come when it will serve you well.

College halls throughout the country will soon have their doors opened to receive young men and women who desire to gain a higher education than the public or high school afforded. Many college students have answered the call of their country and sophomores, juniors and seniors returning this fall will miss the hearty call of many of their former classmates. Will I or will I not attend college is a question which is probably confronting many young men at the present time. It is a question which must be decided by oneself. Others may offer suggestions, but you are the one who is vitally concerned. This is an age of specialization and there are colleges and schools to give training in your chosen line. By the time most young men reach college age they have an idea of the line of work for which they are adapted, although this is not always the case as some change their minds after attending college for a couple of years. However, a young man planning to be a proficient farmer would hardly enter a medical college, and vice versa. It is generally conceded that it is necessary to have special education and training to enter any of the professions but that the knowledge gained at public school is sufficient for the farmer. Consequently, if a young man announces his intention of entering one of the professions, every

effort is made to assist him in his studies, but it is entirely different with the lad who decides on farming as a life work. Some parents have the idea that learning leads a boy away from the farm, while others claim special education is not necessary. It will depend on the young man as to the benefit derived from a college training. He should have a definite aim in view and work to that end. Passing examinations, while essential to securing a degree, does not necessarily indicate the amount of practical information a student is ab-

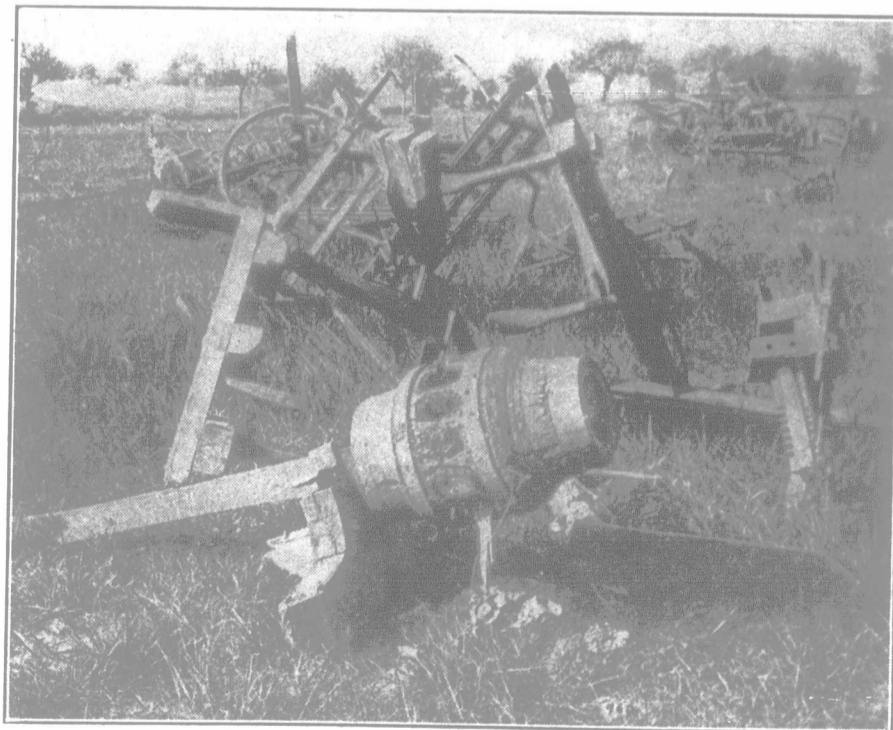
le to acquire. Why certain crops should follow each other in the rotation? Do you know about balancing a ration for the different classes of stock? Do you know the history of the different breeds or are you able to write out a pedigree? Do you know the noxious weeds and how to eradicate them, or how to control the insects which attack the farm crops? How about judging stock—can you place a class and give reasons for your placings? Can you tell the different breeds of poultry apart and

outline a satisfactory method of housing and feeding a flock? Can you run an incubator or brooder? Do you understand testing milk and cream? Then there is horticulture, vegetable growing, chemistry, drainage, farm mechanics, agriculture. English literature, composition, public speaking, etc., which are included in the curriculum. You may know the general principles of farming, but at the agricultural college you learn the why of things, which enables you to work more efficiently and to take greater interest in the daily routine on the farm. It gives you a broader vision; it enlarges your horizon of life.

The studies are not the only educative features at the college. Some time should be set aside for attending the different society meetings at which you should take an active part. You will find an opportunity for debating and public speaking at the literary society meetings. If a musician, you will be called upon

frequently, so don't forget to take your instrument along. The Y. M. C. A. holds interesting meetings and does much good work. A certain amount of time spent on the football field or in the gymnasium is not wasted.

Plan to get the most out of your college life. Go with that idea and don't tie yourself up to one or two things. Be sociable. You will meet fine fellows of many nationalities and from them you may



Farm Implements Ruthlessly Destroyed by Retreating Germans.
A French official photograph that is mute evidence of the ruthless destruction of all the farming implements found by the Germans retreating before the French. International Film Service.

sorbing. Some who only make a fair average on all subjects make more practical men than those who head the class.

Don't imagine that because you have been raised on a farm that the work at an agricultural college will be easy and that you can have a good time at the beginning of the term and yet make a good standing at the Christmas examinations. You may know how to plow and harrow and feed stock, but do you understand why

learn about customs in their home lands. You may enter college with the idea that you know a good deal, but the more you study the more you see there is to know and by the time you reach your junior or senior year you will begin to think that after all you are quite insignificant in this big world. Education opens the eyes to the vastness of things and to the great possibilities in life. If you have an opportunity to attend college, seize it but don't be content with just getting a smattering of knowledge about the various subjects. Delve deep; get at the bottom of things. If you do not grasp certain things in the lectures, have a talk with the professors. They are ever ready to help you. To only half know a thing may lead to many complications, as Pope has said:

"A little learning is a dangerous thing;
Drink deep or taste not the Pierian Spring;
Their shallow draughts intoxicate the brain,
And drinking largely sobers us again."

THE DAIRY.

Occasionally a cow goes lame at this season of the year. In many cases this trouble could have been avoided if a little attention had been paid to the feet. The hoofs become too long and break, causing much pain to the animal. Prevention is in trimming the feet early in the season.

If concentrates must be purchased for winter feeding, get quotations now. Prices are generally lower during the summer and early fall than during winter and spring. If you do not require a carload yourself call up a neighbor or two and buy co-operatively. Better prices are quoted for car lots than for single tons.

Some dairymen stable their cows during the day and find that it pays. The cows are not bothered so much with flies and are out of the hot rays of the sun. Hay, silage or green feed can be given in the stable, and will give the pastures a chance to pick up a little. This system helps to maintain the milk flow at a time when it usually drops below normal.

The extent of the profits is largely regulated by the milk flow. Many have been content with only a fairly good average yield, and have not exerted themselves to increase production by use of better sires or weeding out the poor milkers. Now when feed prices are high they find it difficult to make ends meet. The cow that gives 8,000 pounds of milk in a year brings in nearly twice the net revenue from the 4,000-pound cow. Set a high standard and aim at reaching it.

During July twenty-eight Holstein cows and heifers qualified for enrolment in the Record of Performance. Canary Queen De Kol was first in the aged class with a record of 19,867 pounds of milk and 737 pounds of fat. Plus Pontiac Artis with 20,911 pounds of milk and 816 pounds of fat to her credit headed the four-year-old class. In a class of nine three-year-olds, Desta 2nd was first, having produced 16,231 pounds of milk and 537 pounds of fat. The two-year-old class was headed by Molly Rue Rattler 2nd. Her record is 9,133 pounds of milk and 361 pounds of fat.

Between June 21 and July 25 twenty-two Ayrshire cows and heifers qualified in the Record of Performance. The average test was around 4 per cent. butter-fat. In the mature class Chief's Buttercup of Fernbrook 2nd was first having given 13,453 pounds of milk and 438 pounds of fat. Grace of Fernbrook was first in the four-year-old class with a record of 12,940 pounds of milk and 503 pounds of fat. Bud's Minnie 2nd headed the three-year-old class with 9,853 pounds of milk and 386 pounds of butter-fat. In the two-year-old class Violet of Gladden Hill was first with 9,015 pounds of milk and 376 pounds of fat.

The leading Holstein cows and heifers in the yearly test in the United States are: aged cows, Duchess Skylark Ormsby, 27,761 pounds of milk and 1,205.09 pounds of fat; senior four-year-olds, Keystone Beauty Plum Johanna, 25,787.5 pounds of milk and 1,035.77 pounds of fat; junior four-year-olds, Queen Piede Mercedes, 30,230.2 pounds of milk and 1,111.56 pounds of fat. Senior three-year-olds, Duchess Hengerveld Korndyke, 22,897 pounds of milk and 903.38 pounds of fat. Junior three-year-olds, Finderne Holingen Fayne, 24,612.8 pounds of milk and 1,116.05 pounds of fat. Senior two-year-olds, K. P. Manor Kate, 22,106.4 pounds of milk and 818.73 pounds of fat. Junior two-year-olds, Finderne Mutual Fayne, 22,150.4 pounds of milk and 960.51 pounds of fat.

Dairymen report a marked falling off in the milk flow. This year was no exception for pastures drying. Millfeeds are so high in price that many find it unprofitable feeding them. Milk has not increased in price in accordance with concentrate feeds. Some cheaper feed must be found to substitute the pastures during July and August in order to allow the dairyman to secure living wages for himself and family. Silage, green feed, as alfalfa, red clover or oats and peas, cut and fed in stable, spring-sown pasture crops consisting of oats, wheat and barley, or hay have been fed during the drought with gratifying results. Plan to plant a few acres more corn or sow a soiling crop next spring. It is a safe guess that the pastures will dry next year the same as they have in the past. A little hay fed night and morning may save the situation this year. Corn

may soon be fed. As yet it contains little of nutritive value.

There were twenty-four Holstein cows and heifers received and accepted for entry in the Record of Merit during the month of July. The mature class was led by Lady Waldorf Pietje, with a record of 772 pounds of milk and 28.31 pounds of fat. In thirty days this same cow produced 3,265.6 pounds of milk and 117.48 pounds of fat. Jemima Johanna of Llenroc was first in the Junior four-year-old class with 501 pounds of milk and 18.47 pounds of fat. Countess Walker Segis was the only senior three-year-old qualifying. Her record was 524.4 pounds of milk and 21 pounds of fat. In the junior three-year-old class Colony Wadmantje Newman was first, with 587.9 pounds of milk and 20.08 pounds of fat to her credit. The senior two-year-old class was headed by Toitilla Pontiac Tot; in the seven days she gave 410.5 pounds of milk and 17.12 pounds of fat. The junior two-year-old Het Loo Pietertje made a sensational showing which brings her into the world's championship class for butter in the seven, thirty and sixty-day divisions for heifers of this age. Her seven-day record was 578 pounds of milk and 26.25 pounds of fat.

Economical Feeding of Dairy Cows.

The feeder of dairy cows for profit is confronted with a difficult problem, which has been gradually becoming more serious with the higher prices prevailing. All classes and varieties of feeding stuffs used by dairymen have increased from 25 to 75 per cent. in value and in some instances, notably corn and bran, the increase has been even greater. During the same period—within the last year—there has been a very small, relatively speaking, increase in the price of butter and other dairy products, which amounts in most localities to less than ten per cent. This situation requires that the dairyman must either be content with smaller profits and even losses, feed more economically, or increase the average production of his herd to insure profitable dairying.

Not only are all feeds abnormally high priced, but the so-called carbohydrate feeds—cornmeal and barley, are also higher priced than many of our protein feeds. Corn, ordinarily worth less than a cent and a half per



In a Newly Settled District.

pound, is now selling for over three cents per pound. Other carbohydrate feeds, while perhaps showing a smaller relative increase in price, are very costly. This suggests, then, that one may well feed less corn in the ration than would otherwise be true; a practice recommended by many of our best feeders when prices are normal.

While roughages are much more expensive than formerly, they are still our cheapest sources of food nutrients. The largest possible use of silage, hays, and all forms of roughage is, therefore, doubly important; since it is both an economical policy and one admirably suited to the present emergency. It is likely, also, that the feeding of grains and concentrates capable of being utilized for human food consumption, should be avoided wherever practical. In the case of cows which are being kept for the production of economical dairy products without attempting advanced registry work, the more limited use of concentrates is not only more economical but also a better public policy to pursue; this in spite of the urgent necessity of keeping production at a maximum. This can not be done unless the dairyman receives a reasonable return for his services.

The serious effects of the winter upon the clover and alfalfa indicate that a more extended use of silage will be of considerable importance. While some farmers may have prepared to meet the emergency through the use of oat and pea hay, soybean, or sudan grass hay, the larger number will probably need to depend upon fodder and silage. Silage is a cheaper source of energy for dairy cows than alfalfa, and no dairyman with even a small herd can afford to be without it, because of its succulence, palatability, and economy.

Regarding economical and efficient rations for dairy cows, that will necessarily depend upon local conditions in so far as they effect feed prices. I do not believe that Distillers' Dried Grains, cottonseed meal or oil meal have increased in price nearly as much as corn. Peanut meal is another cheap source of protein at present prices. In fact, protein feeds are relatively cheap, and since it is thought they may stimulate milk production,

a ration with a narrow nutritive ratio may profitably be supplied. The following ration may be criticized for being too narrow:

Distillers' Dried Grains.....	100 pounds
Cottonseed meal, oil meal, or peanut meal.....	75 "
Brewers' Dried Grains or gluten feed.....	75 "
Corn and cob meal, or Hominy feed.....	50 "

But I believe by using the cheaper feeds where a choice is indicated, it would be economical from the standpoint of results. Ground oats and bran, costing \$40 to \$50 per ton, while recognized as very good dairy feeds, are not included because of their excessive cost.

This problem of economy must be handled by every dairyman, and the ration most admirably suited for one may be entirely unsatisfactory to another. Many are handicapped by not being in a position to secure a large variety of feeds, and must fix up their ration as best they can with the feeds available. By duly considering the relative economy of the different feeds, a fairly satisfactory ration can be secured, although it will be considerably more expensive than formerly.—Prof. L. S. Gillette, in the Ayrshire Quarterly.

Dairy Progress in the Prairie Provinces.

During recent years the dairy business has gone ahead by leaps and bounds in Manitoba. A few years ago that Province was looked upon by Easterners as solely a grain-growing district, but at the Provincial Fair recently held at Brandon the dairy division had a display which emphasized the improvement in quality and quantity of dairy produce. In 1912 the output of creamery butter was 2,936,138 pounds, while in 1916 it was 6,574,510 pounds. During the same period the output of cheese increased about 210 per cent. These figures convey some idea of the change in methods of farming which is taking place. The practice in the Province of buying cream on grade and selling butter on grade has resulted in a marked improvement in the quality of the manufactured product.

In Alberta there has also been a marked increase in the output of dairy products. On large placards in the Dairy Department, at the Edmonton Exhibition, the following information was brought to the attention of visitors. In 1914 creamery butter to the extent of 5,450,000 pounds was manufactured in Alberta, but in 1916 the output reached 8,521,784 pounds. The cheese output increased from 70,591 pounds in 1914 to 600,000 pounds in 1916. The dairy cow is gradually proving her value in the Prairie Provinces. The results of experiments conducted at the Lacombe Experiment Station were also set forth on large cards. On one it was shown that the cost of producing butter could be reduced 20 per cent. by the use of oat and pea

silage. With timothy hay it cost 31 cents to produce a pound of butter, with green sheaves 20 cents, and with the silage 16 cents. This shows the value of silage for dairy cows. Ontario dairymen can grow corn for silage, which is generally considered to be more economical feed than the oats and peas. However, in districts where corn cannot be grown successfully the two grains mentioned could be ensiled for their make very satisfactory feed, as evidenced by the results in Alberta and elsewhere. Profits from the dairy herd are influenced in no small degree by the system of feeding followed and the quality of the individuals comprising the herd.

A Clean Yard.

In the spring and early summer when there were frequent rains, many barnyards had the appearance of a quagmire, and the cows were forced to wallow through it going to and from the stable. Not only did the udders become dirty, but in many cases the filth caused thrush or a festering to start where the hoof is cloven. Lameness set in, causing a falling off in milk. Now, when the weather is fine the yard is reasonably dry, but there is likely to be another wet spell this fall. If possible put the manure on the land either for wheat, roots or meadow. This will not only make it better for the cows, but it will stop waste by leaching. When the cows' udders become soiled just previous to milking it increases the difficulty of producing clean, sanitary milk. Owing to having to wash the udder, it takes longer to do the milking. In many instances the manure pile could be placed on the opposite side of the barn from which the cows enter the yard without increasing the labor of cleaning the stables. Possibly it only requires the cutting of a door in the shed wall or adding a few feet more to the litter carrier track. Look over the situation and see if you cannot arrange things so that the cows will not have to tramp through slush up to their knees this fall and next spring. It will pay to have at least a high and dry pathway leading to the stable if the entire yard cannot be kept dry.

POULTRY.

Feed the Growing Flock.

Examine the growing chicks for vermin. Sometimes they become infested with lice which sap their vitality. You cannot expect them to do well under such conditions. Give the chicks every chance to develop properly. If winter eggs are to be gathered the pullets must be well fed. This is where some are making a big mistake. Because feed is dear the pullets are kept on a maintenance ration. A flock so fed cannot be expected to lay early this fall. It would be more profitable to select a few of the best and feed them well and market the rest rather than feed a large number sparsely and get no returns when prices are good. It must be remembered that green feed and grubs do not contain sufficient nourishment to produce eggs. A little grain is required. Now that the new crop is on the birds will find considerable feed in the fields adjoining the barn. They will pick up a lot of grain that would otherwise be wasted. What about the grain fields farther back on the farm? Are the broken heads and shelled grains to lie there and rot at a time when prices of grain and of stock which consume grain are high?

We know the difficulty of getting the flock to go far from the buildings, but many poultrymen overcome the difficulty by drawing the colony house to the field, or erecting some improvised house in the grain field to shelter the growing flock. It might pay you to try this method this year and see how it works out. The birds will require a constant supply of water and this may entail a little extra work, but one man gets over the difficulty by drawing a barrel of water to the field and by means of a tap provides for a continual dropping of water into the basin. By this method a barrel of water will last a considerable time. The basin should be scoured occasionally, and if a little potassium permanganate were put in the water to colour it, it would serve as a disinfectant and might prevent spread of disease. In a large flock there is likely to be several birds suffering from colds or minor ailments which might prove serious if not attended to. Separate affected birds from the main flock so as to run no risk of heavy mortality in the fall. To make poultry raising profitable the flock must be given constant attention and be fed more than a maintenance ration.

Don't Allow Mites to Stay in the Hen Pen.

A certain flock of hens which had been laying fairly heavily since the new year suddenly ceased laying when the hot weather set in. Soon they began roosting outside instead of in their customary place. At first little was thought of it, the cause being attributed to the excessive heat. However, on making an inspection of the roosts and nests it was found that they were literally covered with red mites. Now, the hen cannot effectively fight these enemies herself, as they attack during the night and retreat to the cracks and crevices about the pen for the day. They do not remain on the birds' body as do the lice. They had no doubt become so annoying that the hens left the pen, and hens cannot be expected to lay when infested with vermin. Kerosene poured on the roosts, around the nests and in the cracks in the wall will exterminate the red mites, and a dust bath or dusting the hen with a louse killer will rid the birds of lice. Examine the hen-house and if vermin is found apply some remedy. Feed is too high in price to allow the egg yield to be decreased by mites or lice which can quite easily be checked.

Egg Production Unusually Low.

The egg and poultry reports of the Live Stock Branch, Dominion Department of Agriculture, for the week ending August 7, is to the effect that the market continues firm. Receipts of fresh-gathered eggs continues extremely light; production is unusually low at the present time, owing to the scarcity of feed, and it is believed that once the new crop becomes available that eggs will be more plentiful. In Montreal the receipts for the previous week were 4,824 cases, as compared with 11,763 cases for the corresponding week last year. The receipts from May 1 to date were 179,075 cases against 262,635 cases for the corresponding period a year ago. In New York the receipts were considerably less the past week than the week previous. At country points throughout Ontario 40 cents per dozen was reached, while throughout the West 35 cents was the highest. The retail price to consumers in Toronto for eggs of extra quality was 45 to 46 cents; in Montreal, 42 to 45 cents; Winnipeg, 35 cents; Edmonton, 30 to 35 cents; Regina, 35 cents; Ottawa, 48 cents; Charlottetown, 34 cents; and Vancouver, 45 cents.

HORTICULTURE.

British Apple Embargo Likely to Remain.

Prospects for the removal of the British embargo against Canadian apples are not bright. Speaking in the British House of Commons, on August 6, the Admiralty Under-Secretary held out no hope for the removal of the prohibition against Canadian apples, stating that space on East-bound vessels could always

be used for cargo of more importance than apples. Leading fruit growers in some districts are optimistic in regard to the disposition of the crop, expressing the opinion that the movement on foot to conserve exportable food material and as much as possible to consume the perishable kinds will help towards an increased consumption of apples. It is also hoped that the same campaign will tend to keep the influx of the United States product low in volume. Come what may, the growers should be organized and ready for any emergency. A light crop in Canada will of course help to alleviate conditions but with the export trade cut off, it will be no use to adopt the Wilkins McCawber attitude and wait for something to turn up. At the present time it appears that large selling firms and well-organized co-operative associations in close touch with markets, would have the easiest sailing when the time comes to do business, and that time is not very far away.

Those who have made a practice of consigning their fruit abroad or have dealt with firms whose connections are likely to be severed on account of the embargo, will do well to group themselves with other reliable growers and build up an agency through which to market the crop to advantage. A high-quality pack at the beginning will do much to inspire confidence in the buying public and make for repeat orders. All through the season the greatest care should be taken to keep the output up to high standard, allowing no specimens in the barrels or boxes that will detract from the appearance or value of the remaining product. Josh Billings once said "When in doubt, you may be sure the doubt is right." Bear this remark in mind when considering size, color, or defects.

Modern Methods of Packing Apples.

In Bulletin No. 2 of the Fruit Commissioner's series entitled, "Modern Methods of Packing Apples," there is information that every fruit grower should have at hand. Barrel and box packing is fully explained and illustrated by P. J. Carey and A. H. Flack respectively. Following are a few notes, taken from the Bulletin, in regard to barrel packing:

See that no nail points project either inside or outside the barrel.

No packer can be considered strictly honest who has two sets of baskets, one for "facers" and the other for "fillers." The "facers" must be taken from the general pack.

Use the iron hoop heading block; it is much easier on the apples than the ordinary wooden press head block.

Avoid pounding unnecessarily upon the heads of the barrels to drive the heading into the croze. A few gentle taps properly directed is all that is needed.

Mark the name of the variety and the grade immediately in lead pencil near the chime, with the initials or number of the packer to serve as a guide when the proper stenciling is done. All permanent marks should be made with stencils and brush.

Wire hoops make a very poor barrel. In all operations in connection with packing study simplicity and directness of motion. The work is light, but every motion is often repeated. Let each operation be completed with the fewest possible motions and, therefore, with the least possible effort. Having selected a method of work, let it be done the same way every time till the process becomes almost automatic.

Bad habits are sometimes unconsciously acquired by packers and sorters. Do not toss the apples about on the packing table every time you wish to select a specimen. It is quicker to select from the apples in view, and much better for the fruit.

Handle the apples as little as possible. Cleanliness should be observed in every part of the work.

Decayed fruits should be disposed of so as not to contaminate either the packing house or the outside premises.

There should be facilities in every packing house to enable packers to keep their hands clean.

Apples that have to be wiped present a much better appearance if this is done within a few hours after they are picked. It can also be done much more quickly.

The following notes on box packing are also concise and to the point:

1. Learn to size your fruit accurately, and the placing in the box is a simple matter.

2. All apples are placed in the box in the same relative position. It cannot be impressed too strongly upon beginners that all sizes and shapes of apples can be properly and conveniently packed in the standard Canadian apple box.

3. Successful packing can only be done with apples of a uniform size in each box. There is no possibility of using an apple larger than the size being packed, and then attempting to straighten the row by using a small apple next to it.

4. Cleanliness cannot be too strongly insisted upon in every feature of box packing. Fingermarks upon boxes or careless rubbing in of moisture and dust are all too common. The most scrupulous attention should be given to the fruit, and all specimens rejected that are not absolutely free from contamination of any sort.

5. Should there be any dust or spray material upon the apples when picked, it is much easier to take it off at that time. If the apples are allowed to stand they acquire a certain gumminess that renders it difficult to make them look clean.

6. Box packing is the repetition of the same motions many hundred times a day. If, therefore, even one unnecessary motion is made with each specimen, it becomes a serious handicap in a day's work.

7. Packers should keep their finger nails well trimmed, otherwise injury is frequently caused by puncturing the fruit handled, resulting in decay. In the Western States packers are required to wear white canvas gloves.

8. Fruit should be uniform in color as well as in size.

FARM BULLETIN.

Live Stock the Feature of Saskatoon Exhibition.

The best exhibition yet held in Saskatoon was staged July 30 to August 3. The outstanding feature of the exhibition was the live stock exhibit, which excelled all previous efforts in volume and quality. The judges were called upon to pass judgment on as fine a line-up of Clydesdales, Percherons and Belgians as has been seen in the West this year. The cattle entries were heavy, and there was stiff competition in the sheep and hog classes. While there were a number of entries in the different breeds from outside the Province, local breeders exhibited some fine stock. The educational exhibits of the Dominion Government and Provincial Experimental Stations attracted a good deal of attention. They were similar to the displays at the other Western fairs.

In the Clydesdales, Ben Finlayson again secured the highest honors. In Percherons, George Lane, of Calgary, won the championship in the male classes on Marvel, and Annie Laurie, owned by S. Brown, of Merid, was awarded the mare championship. The chief competition in the Shorthorn classes was between the herds of J. G. Barron, and J. A. Watt. Barron secured the senior and grand championship on Augusta's Star; the reserve going to Watt on his senior calf, Gainford Seal. Watt secured the senior championship in the female classes on Thelma 3rd, but was defeated for the highest honors by Barron's Lavender 46th. L. O. Clifford, of Oshawa, secured the highest honors in both the male and female Hereford classes. J. D. McGregor won both grand championships with his Aberdeen-Angus cattle.

The dairy classes were well filled, and the honors were awarded similar to those at Regina; Laycock winning in the male classes for Holsteins, and Clark and Sims in the females. Ness exhibited a large herd of Ayrshires but had no competition. J. Harper & Sons took all the championships in the Jersey classes.

The judges were: Clydesdales—Fred Richardson, Columbus, Ont.; Percherons and Belgians—R. E. Drennan, Canora, Sask.; Shorthorns and Aberdeen-Angus—Capt. Thos. Robson, London, Ont.; Herefords—Prof. Barton, Macdonald College, Que.; dairy cattle—James Boden, Danville, Que.; swine—Prof. Wood, Manitoba Agricultural College; sheep—A. J. Macdonald, Man.

Annual Meeting Of the Canadian Seed-growers' Association.

The annual meeting of the Canadian Seed-growers' Association for the year 1916-17 was held in the Canadian Building, Ottawa, on July 31st and August 1st. Dr. Jas. W. Robertson, President, occupied the chair. The reports submitted showed that never before in the history of the Association has the value of systematic work in the improvement of seed been more apparent than during the past season. The number of applications from individual farmers who wish to carry on this work under expert direction is 285, this being much the largest number ever received during any one year. The total number of farmers now affiliated with the Association is 1,504. Plans were discussed for advancing the work still further and of adapting it to meet after-war conditions. The problem of assisting in creating a source of supply of pure, vital and productive seed in sufficient quantity to meet the needs of newcomers and others is an important one, and, therefore, received special consideration at this conference. The matter of encouraging the production of registered seed potatoes on a substantial scale in certain districts of New Ontario for use in the older-settled parts was discussed at considerable length. The Association expects to co-operate with the Provincial Department in this work, and looks forward to rather large developments. The officers elected for the ensuing year are as follows: Dr. Jas. W. Robertson was re-elected President, as was also L. H. Newman as Secretary-Treasurer. The Board of Directors consists of 18 members, and is composed of prominent authorities from each of the Provinces.

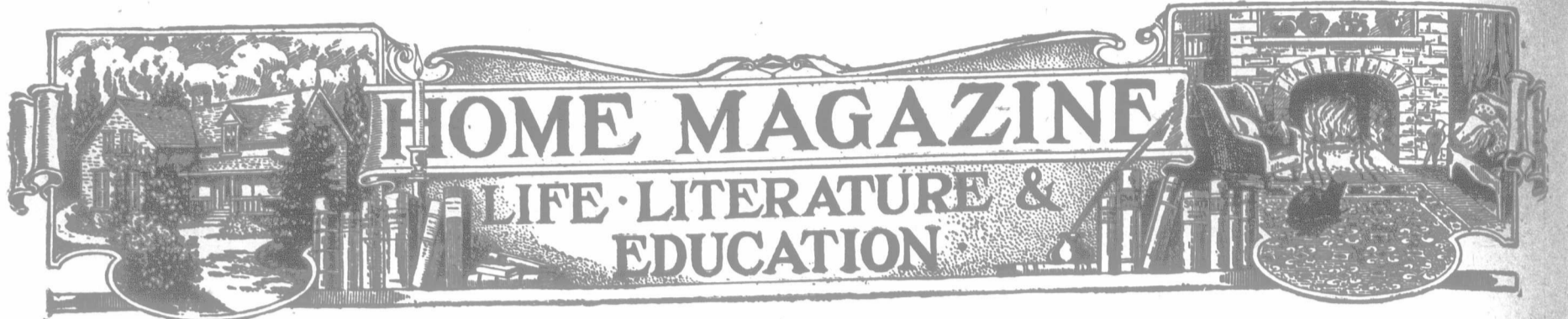
South Peel Notes.

EDITOR "THE FARMER'S ADVOCATE":

At the time of writing, August 9, very much hay lies still unharvested; the rain at the commencement of the hay harvest and scarcity of help being the principal reasons. The hay crop was mostly all fair in this district; the wheat crop is practically a failure; spring crops good, although the rain has flattened out much of it. The corn crop is good although not so long as in some years. The apple crop is light; small fruits are good. The potato crop is the best for years. Although most of the people are doing with less help, the cities deserve credit for the way they answered the farmers' call.

Peel Co., Ont.

JAS. B. ROSS.



A Branch o' Red.

A branch o' red in the green,
Around the river bend!
From where?—and how did it come?
And is this summer's end?

Oh, branch o' red in the green,
Oh, crimson life aglow,
Soul-clear beneath in the stream—
Did God's touch make you so?

Above the stream of the years,
On youth's dear strength I'd lean,
And see my life reflected—
A branch o' red in the green!

CLARA SEAMAN CHASE.

The Choice.

(By John Masefield, in "Contemporary Verse.")

The Kings go by with jewelled crowns;
Their horses gleam, their banners shake,
Their spears are many.
The sack of many-peopled towns
Is all their dream;
The way they take
Leaves but a ruin in the brake,
And, in the furrow that the plowmen
make,
A stampless penny; a tale, a dream.

The Merchants reckon up their gold,
Their letters come, their ships arrive,
Their freights are glories;
The profits of their treasures sold,
They tell and sum;
Their foremen drive
Their servants, starved to half-alive,
Whose labors do but make the earth a
hive
Of stinking stories; a tale, a dream.

The Priests are singing in their stalls,
Their singing lifts, their incense burns,
their praying clamors;
Yet God is as the sparrow falls;
The ivy drifts,
The votive urns
Are all left void when Fortune turns,
The god is but a marble for the kerns
To break with hammers; a tale, a dream.

O Beauty, let me know again
The green earth cold, the April rain,
the quiet waters figuring sky,
The one star risen.
So shall I pass into the feast
Not touched by King, Merchant, or
Priest;
Know the red spirit of the beast,
Be the green grain;
Escape from prison.

The Good Angels of St. Dunstan's.

Many readers of this paper will be pleased to see in this issue portraits of the benevolent faces of Sir Arthur Pearson and Lady Pearson, truly the good angels of St. Dunstan's, the great school for blind soldiers and sailors established by Sir Arthur, at which men without hope are given a new lease of life and taught to be self-reliant and self-supporting. Sir Arthur, who is himself blind, is a frequent visitor at the institution. His wife has been a great aid to him in his great work of mercy.

British Columbia's Gentle Sex Don Trousers and Harvest Crop.

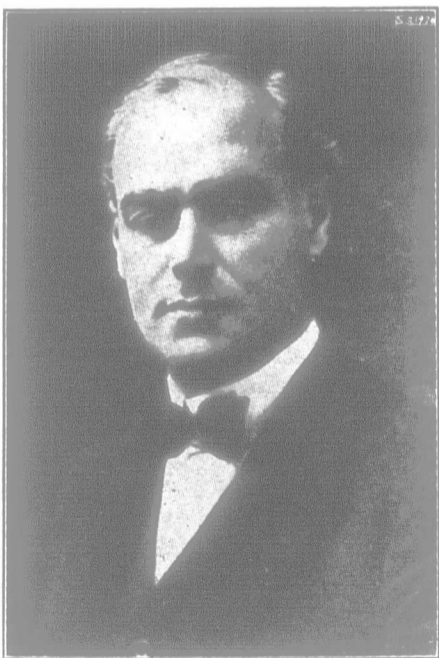
(By Suzanne Garnier.)

More man has received another job out in the Province of British Columbia. His long-held supremacy in wearing trousers has been wrested from him by five thousand sturdy British Columbia women; and to-day a little khaki-clad army of the

feminine sex is hard at work in the berry fields of the province picking the bountiful crop. The army's motto—or, painted on their waving banner, had they one—would probably read "Patriotism Plus"; for, in going into the fields and toiling long hours under the broiling sun, the women are performing a valuable patriotic work, while at the same time putting away for themselves a dollar or more a day. It happened in the following manner:

Early in the season the fruit-growers of the Province, promised with a bountiful crop, were confronted with the possibility that practically two-thirds of this would be a total loss owing to the scarcity of labor. After some deliberation they petitioned the Government for special permission to withdraw the head tax on several thousand Chinese coolies, and have these men imported from China to harvest the berry crops and other fruit. This was some problem for the Government, for, while every possible effort was necessary to produce and harvest crops to aid the Allies and for home consumption, the importing of Chinese labor was not desired. These people send most of their money home and would also make more people in the country to be fed. However, there seemed no way out of the matter, and the Government were about to accede to the request of the fruit-growers when some of the leading women of the Province—than whom are no more ardent workers for equal rights for women in the Dominion—got busy and settled the matter.

They promised the Government to



Sir Arthur Pearson.

raise an army of women workers to harvest the berry and small-fruit crops. And they were as good as their word. By the tenth of July the first regiments of the feminine army had marched upon the strawberry fields on the mainland and Vancouver Island, and proved highly satisfactory.

Never was stranger army—waitresses, store girls and women from a dozen similar occupations in the big cities of Vancouver and Victoria; high school and collegiate girls and many of their teachers; the daughters of judges, lawyers, bankers, railroad presidents—all these women from varied walks of life are now in the female army of fruit-gatherers. While blue, gray and several other shades of clothing are to be found in the army, the chief style of dress is a khaki two-piece suit, trousers and belted coat. With this is worn calf-leg boots, the trousers being tacked into these. Enormous straw hats complete a neat and efficient costume.

The women have not only gathered strawberries and raspberries, but undertaken the heavier tasks of hoeing the fields, and by the end of July were undertaking the gathering of cherries, requiring ladder-climbing and feats of dexterity not common among feminine workers in the past. A heavy apple crop is promised for the great fruit-growing Okanagan Valley country, but the workers have expressed their willingness to do this work also.

The work of berry-gathering is not difficult once the worker has become accustomed to the peculiar crouching attitude required. On most ranches a ten-hour day prevails. For the gathering of strawberries 30 cents a crate is paid; 40 cents for raspberries, with an additional bonus of 10 cents a crate to all workers staying the season, and the minimum a good worker can make is a dollar a day.

For the accommodation of the women, bunk-houses have been built. These are equipped with mattresses, and oil stoves for cooking purposes.

Through the war Canada has learned many valuable lessons in economics, and it is interesting to note how the Canadian women have taken hold and successfully performed tasks that a few years ago were utterly strange. In this donning of trousers and going into the fields to replace undesirable Chinese labor, the women of British Columbia have done a splendid work.

Mrs. Buchanan's Book.

Members of the Women's Institute will be especially interested to know that



Lady Pearson.

Mrs. Walter Buchanan, of Ravenna, bids fair to take her place as Poet Laureate of the organization in which she is so well known. She has recently issued a book of poems, "Country Breezes from Breezy Brae," chiefly poems on homely subjects and local occurrences, with several in Scotch dialect. The book is published by the Beaver Valley Pub. Co., Ltd., Thornbury, Ont.

A certain Church of England bishop, desirous of doing his humble part in the war by effecting economy, was travelling in a third-class carriage with a rather roughly-looking workman. The latter exhibited surprise at such company and, consumed by curiosity, inquired: "I suppose you are a curate, sir?" "Er—no," weakly replied the bishop, "not exactly—but—but I was once a curate." "I see," commented the other; "that 'orrid drink again."

The Windrow

A Japanese has enlisted with the Highlanders in Toronto.

A territory 800,000 acres in extent has been discovered recently in Colombia, S. A., which is so soaked with oil that it lies in pools like water. The place is inhabited only by Indians.

One of the plans by which disabled soldiers may earn their living, devised by Frank Gilbreth, the efficiency engineer, is the business of professional dental nursing. Much ill-health is now known to be due to poor teeth, and poor teeth may be greatly prevented by keeping them scientifically clean. The regular dentist's charges for this work are high, and it is thought that the dental nurse, at a lower rate, may still make a fair living wage.

The French have dubbed the American soldier "Teddy." When the first battalion swung upon the boulevard in Paris, glad shouts of "Teddy! Teddy!" rose above the sounds of the band; hence, "Teddy," rather than "Sammy," will be the American war name.

"It is clear that in Kerensky Russia has found a Mirabeau, if not a Danton. The spectacle of this dynamic man, raised from obscurity within six months to a first place in the history of the war, is thrilling. Kerensky, a semi-invalid, suffering from the fatal malady of tuberculosis of the kidneys, has been from the first the leading figure in the Russian revolution. At fearful cost he has instilled into Russia's millions the ideals that will bring them lasting freedom. He has travelled unceasingly, often being carried from platforms in coma, after fainting from sheer physical exhaustion. It was this man who led the Russian soldiers in the attacks that brought Russia back into the war, and he led his men to victory.

"So far as Russia is concerned, the only question is whether or not this newest of democracies is capable of exercising lasting self-control, of imposing upon itself that discipline without which democracy cannot survive. But who can doubt, after what has taken place, that Russia will go through to the end? She must do it in her own way, and that way may not fit in exactly with our notions of how Russia should proceed, but friends of democracy must be patient and have confidence in Russia."—Brooklyn Eagle.

A Warlord's Chums.

"Tell me whom you go with and I will tell you what you are." If there is any lingering doubt in the mind of any one that a German victory would be a menace to the world, it is sufficient to study the elements in each nation which are consciously or unconsciously working in the German interest. We do not refer to Germany's formal allies, although the Turkish alliance alone would discredit any cause, but to the Kaiser's partisans in the allied or in the neutral countries.

In Russia, who is for war with Germany? The ablest and most honest moderates, such as Milukoff and the Constitutional Democrats. The ablest and most honest radicals, such as War Minister Kerensky and the rest of the existing Government. Who is for peace with Germany? The reactionary bureaucrats of the old monarchy who repeatedly endeavored to betray the Russian cause to the enemy until the revolution put a stop to their unpatriotic intrigues. The anarchists, who are trying to disrupt the republic and enthrone mob law. Those who gave Russia the worst government in the world are hand in glove with those who wish Russia to have no government



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at all, when it comes to questions of foreign policy.

In Spain who is pro-Ally? The young King and the Liberals. Who is pro-German? The court circle, which boasts of being more royalist than the King and presents an unyielding front to every movement for reform. In Greece? A statesman like Venizelos favors the Allies, and an incompetent autocrat like the ex-king Constantine the Germans. In China? Germany backs a conspiracy to restore the Manchu dynasty. In Ireland? The constructive statesmen of the Nationalist party support the war. The Sinn Fein, futile and impractical dreamers, allied with dynamite plotters, are for the Germans. What type of man did Germany select as a friend in Latin America? Huerta!

In our own country what is the record, apart from this war, of the majority of congressmen who attack the Allies or defend the Germans? Read their speeches in the Congressional Record. See how much of sound logic, good feeling or broad sympathy with human progress they contain! Try and verify some of the "facts" they allege. Look over the pro-German newspapers and magazines, or those that were so before we entered the war. How many of them represent the best of American journalism? How do the radicals of the nation line up? For America, such Socialists as Charles Edward Russell, William English Walling, Phelps Stokes, John Spargo, W. J. Ghent, Congressman Lunn; the remnant of the Progressives, and the Wilson Democrats. For disloyalty, the I. W. W., Alexander Berkman and Emma Goldman! One might pity the Kaiser for the friends and allies which he has been forced to cultivate, for even he cannot be proud of them.—The Independent.

The following items are from The Independent:

Some of the Prominent Men Displaced During the War.

- MONARCHS.
- Pope Pius X (died).
- Francis Joseph of Austria-Hungary (died).
- Carol I of Rumania (died).
- President Yuan Shih-Kai of China (died).
- Nicholas II. of Russia (deposed).
- Constantine of Greece (deposed).
- Emperor Hsuan-Tung of China (deposed).
- Albert of Belgium (in exile).
- Peter of Serbia (in exile).
- Nicholas of Montenegro (in exile).
- Wilhelm of Albania (in exile).
- STATESMEN.
- Premier Asquith of Great Britain.
- Chancellor von Bethmann-Hollweg of Germany.
- Premier Briand of France.
- Premier Viviani of France.
- Premier Stürgkh of Austria (assassinated).
- Premier Tisza of Hungary.
- Premier Goremykin of Russia.
- Premier Stürmer of Russia.
- Premier Trepoff of Russia.
- Premier Lvoff of Russia.
- Foreign Minister Grey of Great Britain.
- Foreign Minister von Jagow of Germany.
- Foreign Minister Zimmermann of Germany.
- Foreign Minister Sazonoff of Russia.
- Secretary of State Bryan of the United States.
- Minister of War Kitchener of Great Britain (died).

- GENERALS.
- Marshal Joffre of France.
- General Nivelle of France.
- General French of Great Britain.
- General von Moltke of Germany.
- General von Kluck of Germany.
- General Rennenkampf of Russia.
- Grand Duke Nicholas of Russia.

- THE COUNTRIES THAT HAVE BROKEN WITH GERMANY.
- *Belgium
- *British Empire
- Bolivia
- Brazil
- China
- *Cuba
- *France
- *Greece
- Guatemala
- Hayti
- Honduras
- *Italy
- Japan
- Liberia
- *Montenegro
- Nicaragua
- Panama
- *Portugal
- *Rumania
- *Russia
- San Domingo
- *Serbia
- *Siam
- *U. S. of America

Names with asterisk are of countries actually at war.

Hope's Quiet Hour

The Transforming Vision.

Beloved, now are we the sons of God, and it doth not yet appear what we shall be: but we know that, when He shall appear, we shall be like Him; for we shall see Him as He is.—I. John, 3:2.

did to Solomon, "Ask what I shall give thee."

Now I know that even goodness would fail to satisfy if it came as a fairy gift. I don't want to be lifted over all the temptations of life, any more than a child at school wants the teacher to solve all his problems for him. I still feel that the wish to be good is dominant in my soul, but I prefer God's way of helping us to climb from strength to strength—first the blade, then the ear, then the full corn in the ear—rather than any magical and effortless transportation.

When we "see Him as He is" we shall be transformed into His image; but let us remember that the rule works both ways. "Blessed are the pure in heart: for they shall see God," said our Lord,

Is this christianity of ours real? That is a searching question for each of us. If we need God in the hour of death, we need Him quite as much when we are battling with the temptations of everyday life. A wise man once said that he was not so much surprised at what men suffer as at what they lose. In these days, when everyone is preaching economy as a patriotic duty, let us be careful lest we allow the "pearl of great price" to slip carelessly out of our grasp. We know that it would be disastrous failure to gain the whole world and yet lose ourselves—lose the eternal life which is the priceless gift offered by the Father to each of His children. If this "eternal life" only meant living on endlessly we might not think it a priceless gift; but our Lord's definition of eternal life is the knowledge of God: "This is life eternal, that they might know Thee the only true God, and Jesus Christ whom Thou hast sent."

To "know" God—to know His infinite love which "passeth knowledge"—how can that fellowship of man with his Maker be within our reach?

It is not the King of Kings who stands aloof; it is His subjects who are too busy or too indifferent to talk to Him or listen to His confidences.

Some men and women at a summer resort had attended an informal service in a shed. The preacher was a stranger; and after the service they began to talk, in critical fashion, about his appearance and style of preaching. But one of that crowd of listeners went quietly away. He was hushed into silence for he thought: "That Other One, Who preached repentance and faith long ago in Galilee, was in the midst of us to-night as we gathered together in His Name."

If a man wants to know another man he seeks his company. Do we seek the company of the Divine Companion? Do our hearts turn to Him when we are alone, or in the intervals of work? Or is prayer only an irksome duty?

A woman once told me that she had gone to church regularly for many years, and did not feel that she was any better for it. So the multitude thronged close to Christ, but only the woman who reached out in her great need to touch the hem of His garment gained anything from the contact. If you go to church, remembering that Jesus is still "in the midst," you can also touch Him and gain strength and inspiration as you kneel at His feet. To go to the place of meeting, where He is waiting to speak to you, and come away with no thought in your mind but the tediousness of the sermon or the prayers, is indeed to lose a wonderful opportunity.

One mother, whose son was killed at the front, said she loved to go to a little church where they had together knelt at the Lord's Table before he went away. The place was a real Holy of Holies in her eyes; for there she found her Lord, and her son was—she knew—only "on the other side of Christ." The veil between them was almost forgotten as her spiritual vision pierced the darkness and she saw



Some of the Workers and Bunkhouses on Fruit Ranches, B.C. Note how they are dressed for their work.

And yet his hunger after righteousness was far from satisfied. It was not enough for him to be sure that he was a son of God. It was not enough to look back to those years of sacred fellowship, when he walked humbly with Jesus of Nazareth. Still he looked forward to the time when he should see the Vision of God and be satisfied. Moses desired earnestly to see the glory of God. St. Philip pleaded that if his Master would only show him the Father he would be perfectly satisfied.

As long as I can remember my dominant desire has been to be good. In the days when I devoured fairy tales, it never gave me any trouble to think what I would choose if "three wishes"—or even one—were offered me. I used to wish that God would say to me, as He

and the writer of the Epistle to the Hebrews warns us that without holiness no man shall see the Lord (Heb. XII:14).

If we want to see the Blessed Vision which has power to make us like the All-Holy God, we must "follow peace and holiness" with earnestness of purpose.

We hear that men who have looked death in the face, for weeks and months at a time, come back from the front with a strange new light in their eyes. They went from home recklessly, as if war were only a great adventure, and there they found a mysterious Presence—an invisible Friend of whom they had heard before but Who had only been a Name, perhaps, until in their hour of agony or danger they gropingly reached up both hands in helpless pleading and found them clasped in stronger hands.



Part of the 5,000 Women Who This Year Gathered Strawberries in British Columbia.

the King in His beauty and the land of far distances.

We are so apt to live as if our chief business in this life were to win earthly success. But money or fame can do very little to cheer an aching heart. A grand house, a motor-car, fine clothes and luxurious meals seem very paltry things to a mother whose son is suffering or dying.

We must have a higher ambition than worldly success if life is to be worth living. Where can we find it except in humbly trying to follow in the steps of Christ? His soul was spotless. We can see His beauty of holiness in the Gospel record. Read and see! Can you imagine higher ideals than He sets before us? The Friend of sinners still tells His followers that they must be "perfect" as their Father in heaven is perfect. If we "see Him as He is" we inevitably fall in love with His perfect beauty, and our great ambition is to become like Him. But our only hope of learning to love Him lies in the fact that He first loved—and always loves—us. A little child soon responds to his father's love—and we are all God's little ignorant children. He wins our hearts by His infinite love. He remembers us when we allow the thought of Him to slip out of our consciousness.

"Our vision of God, clouded and incomplete, is made possible by God's vision of us, which is perfect and uninterrupted. Not so much knowing Him as known of Him, not so much seeing as seen, we have the assurance that our loftiest thoughts answer to His inspiration, and our largest hopes to His counsel."

The Rev. Charles Simeon, who did a wonderful work among the students of Cambridge, gained his spiritual power for good from constant communion with his Master. In his rooms there was a passage from the attic to the roof; and that solitary oratory on the roof—where he loved to walk alone with God—was like a power-house for his soul.

We haven't time for everything we want to do, perhaps, but let us put first things first. What shall it profit us if we gain riches and worldly honor, if we have allowed the Vision of God to fade out of our hearts?

The matter lies in our own hands. As St. Bernard used to say: "There is Someone waiting for me in my cell." He waits for us—does he wait in vain? Whittier says:

"And so I find it well to come
For deeper rest to this still room;
For here the habit of the soul
Feels less the outer world's control.
And from the silence multiplied
By these still forms on every side,
The world, that time and sense has known,
Falls off, and leaves us God alone."
DORA FARNCOMB.

From "Somewhere in Quebec."

A dollar, from "Mary—somewhere in Quebec," dropped into the Quiet Hour purse a few days ago. I have just returned from a visit in the country, and must get to work, for the gifts entrusted to me "for the needy" have accumulated until the Q. H. P. is overflowing with dollars.

How kind our readers are! Please remember that I am not spending your money on any "great work," only trying to help a little here and there.

HOPE.

The Fashions.

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. 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. See under illustrations for price of patterns shown in this week's issue.

When ordering, please use this form:—
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County.....
Province.....
Number of Pattern.....
Age (if child or misses' pattern).....
Measurement—Waist.....Bust.....
Date of issue in which pattern appeared.....



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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.]

It was a florist's window, and the "arrangement" in it had been made purely for notoriety, since it answered no purpose whatever of real advertisement. Real advertisement would have called for flowers, flowers arranged to suggest, alluringly and subtly, some idea of the greater treasures within. This design had nothing whatever to do with flowers. It consisted chiefly of a small pool with a barren rock creation about it, a miniature windmill, and a half dozen of the softest, weeniest ducklings. Sometimes the little ducklings slept in a confused little jumble of yellow and brown on the uppermost of the "rocks;" sometimes they swam about in the clear, cool water into which, now and again, they submerged their little heads deliciously; and sometimes they waddled aimlessly about the pool. Always, however, with the greatest nonchalance, precisely as though they had been used to cities all their lives, quite indifferent, indeed, in regard to the gazing faces at the window, "What perfectly cuddly little things!" "Oh, aren't they too sweet for anything!" "And they can swim!" "What are they, ducks or geese?"

Such expressions as these were bandied about on the other side of the glass, and the crowds passed on to make room for fresh ones. An oldish little woman in a brown dress, wearing a hat with cherries on it, paused among the rest, but she said not a word. Anyhow she was alone, so there was no one to whom she could speak, but to the observant, her face spoke volumes. A sort of light came into her black eyes, and a look of tenderness upon her countenance, spreading slowly and expansively until it expressed a variety of emotions. There was memory there, surprise and wistfulness and loneliness. Lower and lower drooped her shoulders, and more and more tender grew her eyes, keeping company with a pathetic little smile at the corners of her lips. One knew she was seeing pictures.

Then, suddenly, she straightened up, looking right past the ducklings into a country far away. Revelation came into the eyes, then a great relief and then a real determination. Without one further glance at the ducklings she started back along the way whence she had come, stepping briskly, almost feverishly, and quite oblivious of passers-by.

On and on she went, straight to a comfortable little house on a "respectable" street, where a man, coat off, was hoeing at a handkerchief plot of ground walled about by a high board fence that shut out the breeze.

Directly to him she went. "I say, John, I've come to the conclusion that we might about as well go home."

John looked up in surprise, pushing back his hat from his perspiring forehead. "Why, Sarah, how's that?"

But Sarah was on business bent. "I've had just about enough of this life, and I desaray you have too.—I know

I made you to stop him as well give I've never came. For you and I ways, John as you said we'd better and go back air and work John, let chop up a to hide his "Well, Sarah rent this house what brought this morning down town "It was "The—d "Yes, th I just thou strawy sme mornings, a and the lo Mrs. Perkin hat and he back there, a fool. I'd was the dea idea to a fir "The—d nonplussed. be told. And that Sarah gave back to B wasn't exact Bill Perkin's plenty of ro ing about, fluffy ducks real pond a

Use I

It seems yet, a comp is served on cities, where another is pe year, the pe sorts of it, l is still large and raspberri table which fruit, rhubar Variety in the appetite in general, di medicinal co time can at have in the p tion to the black and strawberries, These will gr southern pa southern por plied, while tribution of The market grape-fruit, lemons, with currants, rais so useful at while in the see species as northern clim other fruits w couraged in t True, a fruit but the re Rich garden bushes shoul together, in o for cultivatio gether" fruit culty and disc well looked a than many al and grow into set out either the spring. Fresh fruit canned and dr seasons, will should there Dried fruits, t tious. All fruits co hydrates, with matters of me also contain a that makes j underripe fruit for this reason fruit should a Upon the wh after careful s beneficial, and Bread and jar

I made you come here"—raising her hand to stop him from speaking—"but I may as well give in now as well as later, that I've never really liked it, never since I came. Folks that have lived as long as you and I on a farm can't fit in to city ways, John. I see that now. It's just as you said it would be, John. I guess we'd better buy that lot of Bill Perkin's and go back where we can breathe real air and work real land."

John, leaning on his hoe, began to chop up a bit of perfectly clean ground to hide his satisfaction.

"Well, Sarah, just as you say. We can rent this house any day.—But look here, what brought you to this all of a sudden this morning? I thought you headed down town to get raspberries to do up."

"It was the—ducks," confessed Sarah. "The—ducks?"

"Yes, the ducks. When I saw them I just thought o' the barn and the clean straw smell about it, and the sunrises of mornings, and the sunsets of evenings,—and the long fields, and the trees, and Mrs. Perkins coming over with a straw hat and her apron flying. It was living back there, John, and I've been a bit of a fool. I'd long suspected that, but it was the dear little ducks that brought the idea to a finish."

"The—ducks?" John still was much nonplussed. So the whole story had to be told.

And that was how John Barber and Sarah gave up being "retired" and went back to Bonneyville (you know that wasn't exactly its name) to settle down on Bill Perkin's 10-acre lot, where John had plenty of real land to keep him pottering about, and Sarah could raise little fluffy ducks and see them swim out on a real pond at the foot of the garden.

JUNIA.

Use Plenty of Fruit.

It seems almost surprising that, even yet, a comparatively small range of fruit is served on many farm tables. In the cities, where fresh fruit of one kind or another is available every week in the year, the people have learned to use all sorts of it, but on some farms the choice is still largely confined to apples, plums and raspberries, with, probably, the vegetable which best serves the purposes of fruit, rhubarb.

Variety in any kind of food stimulates the appetite; moreover fruits—which are, in general, dilute foods—vary in food and medicinal content; hence wherever the time can at all be afforded it is well to have in the garden and orchard, in addition to the varieties above mentioned, black and red currants, gooseberries, strawberries, cherries, pears and grapes. These will grow in most of the central and southern parts of Canada. By the southern portions peaches may be supplied, while the far north adds its contribution of blueberries and saskatoons. The markets, too, contribute oranges, grape-fruit, pineapples, bananas and lemons, with olives, and the dried prunes, currants, raisins and apricots that prove so useful at certain seasons of the year; while in the not-far-off future we may see species as yet practically unknown in northern climes—the avocado, loquat, and other fruits whose cultivation is being encouraged in the Southern United States.

True, a fruit garden requires some time, but the results are very satisfactory. Rich garden soil is a necessity, and the bushes should not be planted too close together, in order to leave plenty of room for cultivation. It is the "jammed-together" fruit garden that presents difficulty and discouragement. A few bushes well looked after will give better results than many allowed to get out of bounds and grow into a tangle. They may be set out either late in the fall or early in the spring.

Fresh fruits for the summer, jellies, canned and dried fruit and jam for other seasons, will be reward enough, even should there be none left over to sell. Dried fruits, by the way, are very nutritious.

All fruits contain more or less carbohydrates, with certain sugars and mineral matters of medicinal value; most of them also contain acid. Pectin, the substance that makes jelly possible, is richer in underripe fruit than in the ripe, and it is for this reason that slightly underripe fruit should always be chosen for jelly.

Upon the whole, as has been concluded after careful scientific experiment, fruit is beneficial, and even necessary to health. Bread and jam is a splendid combina-

tion, while fresh fruit is found helpful to the digestion and general health of all save a very unfortunate few who find it advisable to take all of their fruit-food cooked. Whether cooked or raw, it may be served very acceptably with rice or tapioca, cornstarch, blanc-mange or ice-cream, as dessert for dinner, or even with plain bread and butter or biscuits. Indeed, as the years go on, there is much less baking of pies and cakes, and much more serving of fruits and green vegetables, than formerly, and people are healthier and happier for it, to say nothing of the saving of time spent over a hot stove in the preparation of more elaborate dishes.

To quote from an expert on the subject: "From the data (of experiment) as a whole it is apparent that fruits are reasonably cheap sources of energy in the diet, and are well suited on grounds of economy for combination in reasonable quantity with cheap proteid foods to furnish a well-balanced ration."

Overripe fruit is often injurious, probably because it has begun to ferment, a fact which should be noted by people with whom raw fruit seems to disagree. Also it should be noted, when trying to keep fruit fresh for any length of time, that bruises or broken skins hurry decay. For this reason fruit should always be picked over as soon as possible, bruises, etc., cut out, and the whole parts stewed immediately. Sometimes, too, micro-organisms adhere to the skin, hence the advisability of washing fruit before serving. If washed, and let dry thoroughly at once, it seems to keep better at times, because of the removal of these organisms, but it must be spread out to dry, as dampness hastens decay. Also when the organisms are removed by washing, raw fruit is much less likely to disagree with sensitive stomachs. The great Paris scientist, Metchnikoff, insisted that there is "always danger of acquiring harmful intestinal parasites or their eggs from raw fruits and vegetables, and insisted that in all doubtful cases these foods should be either cooked or scalded (blanched) before eaten. On farms, however, this condition is less likely to exist in fruits brought straight from the garden, than in similar foods bought in cities, often exposed to careless handling, to endless dust, and to flies.

Storing Fruit.

Fruits are stored most safely in jam, jelly, dried, or in cans. Many fruits may be stored raw, for a considerable length of time, in cold storage if possible, but even in an ordinary cellar if it is cool enough and dry enough. A temperature of 31 to 32 degrees F. is said to be best for storing apples, pears, peaches and oranges; 32 degrees F. for musk and watermelons; 33 to 34 degrees F. for cranberries, and 35 to 40 degrees F. for dried fruits. The air should be dry enough to be unfavorable to mould growth (if cool enough mould is not so likely to make its appearance) and just moist enough to prevent shriveling; and the store-room should always be kept sweet and clean. Choice apples and pears can be kept an unusually long time if each is wrapped in clean, unprinted paper which is not too thick, a process which greatly hampers the growth of moulds and development of bacteria. As time goes on all fruits kept in barrels or boxes, or even on shelves, should be picked over. Decay spreads, hence all fruit that shows the slightest trace of decay should be removed.

Some Fruit Recipes.

Tapioca and Apples.—Three-quarters cup tapioca, 7 tart apples, ½ teaspoon salt, ½ cup sugar, a little cold water, 2½ cups boiling water. Soak the tapioca an hour in cold water to cover; add the boiling water and salt, and cook in double boiler until transparent. Place the sliced apples in a buttered baking-dish, sprinkle well with sugar, pour the tapioca over and bake.

Apple Crumb Pudding.—Put sliced apples in a deep baking dish, with sugar enough to sweeten mixed with them. Cover with a "crumb" made of flour, butter and sugar mixed together, and bake. Serve with cream or boiled sauce.

Apple Batter Pudding.—Put sliced apples in a deep baking-dish, with sugar to sweeten and a very little water. Over the top put a batter made by any good recipe for layer cake, and bake at once. Serve with cream or boiled sauce. A

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little salt and nutmeg or cinnamon may be added to the apples if liked.

Fruit Roly-Poly.—Make a good dough, as for pie paste, but with baking-powder and not too much shortening. Roll out. Spread with jam or with any kind of raw fruit and sugar; chopped apples are good. Roll up, pinch together, brush with milk and bake. Serve with cream and sugar.

Apple Foam.—Make apple sauce, using as little water as possible, sweeten and flavor to taste. Beat fine with an egg-beater, then add the beaten whites of 2 or 3 eggs. Serve with a custard made with the yolks of the eggs, some milk, and a little cornstarch.

Apple Custard Pie.—Two well-beaten eggs, 1 cup grated apple, 1 pint sweet milk, 2 large spoons sugar, a pinch of salt and a little flavoring. Put in lined pie tins and bake. Banana may be used instead of the apple.

Apple or Berry Dumpling.—Two cups sour cream, a level teaspoon soda to each cup, pinch salt, flour to roll. Spread with fruit, roll up and put in floured pudding-bag. Boil 2 or more hours. Serve with sauce made of butter and sugar beaten together.

"Cold Water" Plums.—Wash plums and pack in sterilized jars. Fill with cold water, screw tops on loosely, put in boiler with cold water to an inch of tops of jars. Heat to boiling point and boil till tender. Fill up jars with boiling water and seal tight. When required for use sweeten to taste several hours before serving. This method retains the natural flavor.

Canned Grapes.—Pulp the grapes and boil pulp 5 minutes, then put through colander or ricer to take out seeds. Add skins and sugar to taste, boil and seal in sterilized jars, boiling hot. For jam add more sugar, and for spiced grapes add spices and vinegar to taste. If liked apples may be combined with grapes that are done up in any way.

Spiced Tomatoes.—Peel and slice and put in kettle with half as much sugar by weight. Add 1 quart vinegar, and 1 oz. each of ground mace, cloves and cinnamon. You may tie these in a cheesecloth bag if you like. Cook slowly for 3 hours.

Tomato Preserves.—Tomatoes may be "preserved" either ripe or green, with sugar. With ripe tomatoes add oranges or lemons put through a chopper, rind and all, and enough sugar to taste. Boil and seal. The green tomatoes should have enough sugar to make a rich syrup, and should be flavored with ginger root. In either case the tomatoes should be sliced or quartered before boiling.

Crab Apple Preserve.—Six quarts crab apples, 1½ quarts sugar, 2 quarts water. Cook water and sugar to a syrup, then add the crabapples, from which the blossom end has been well rubbed off. Cook gently until tender.

What To Do In A Storm.

The following very useful notes have been taken from the Globe:

If you are out of doors in a very severe electrical storm, the Electrical Experimenter offers the following rules for your protection:

1. Keep away from wire fences. They may carry a dangerous electrical charge long distances. Cattle in pastures are frequently killed from the neglect of farmers to ground the wire of the fence.
2. Keep away from hedges, ponds and streams.
3. Keep away from isolated trees. Oak trees are frequently struck; beech are seldom struck. It is safe in a dense forest.
4. Keep away from herds of cattle and crowds of people.
5. Do not hold an umbrella over you.
6. It is safer to sit or lie down in an open field than to stand.
7. Drivers should dismount and not stay close to their horses.
8. Do not work with any large metal tool or implement.

If you keep indoors:

1. Keep away from the stove and chimney. The hot gases from the chimney may conduct the lightning to and down the chimney.
2. Do not take a position between two bodies of metal, as the stove and water pipe, for example. An exception to being near metals is the case of an iron bed. One of the safest places is on a mattress in an iron bed, provided you do not touch the metal. The metal surrounding you makes a safe cage which

will prevent the lightning from reaching a person inside.

3. Do not stand on a wet floor nor draw water from the well or faucet.

4. Do not stand directly under a chandelier, near a radiator, nor on a register.

5. Do not use the telephone.

The Scrap Bag.

Stocking Run.

If you notice a run starting in your stocking and have not time to sew it immediately, moisten the place where the run ends and it will go no further.

Use for Old Spools.

Do not throw away old spools. Keep them to slip over nails or cheap hooks where anything is to be hung that will tear. This will save much patching.

Hot Weather Clothes Hint.

In warm weather, when clothes are not to be washed immediately but have to wait some time in a basket or hamper, drop some pieces of charcoal into the folds of the clothes and the strong, objectionable odor will be removed.

Make Your Own Vinegar.

Save all your apple, peach and pear parings, and put in an earthen jar covered with water. Add any rinsings from vessels containing sugar or molasses, also a little "mother of vinegar." Keep in a warm place until it ferments and becomes acid, then strain through several thicknesses of boiled cheesecloth.

To Clean White Enamel.

White enamel may be cleaned easily as follows: Rub with common baking soda, then wash off with hot soapsuds.

A Dinner Wagon.

A dinner wagon is a great convenience to a busy woman, and any handy man can make one by following the illustration. Planed packing-box material will do for the top of the shelf, if there is no better on hand. The table should be fitted



A Dinner Wagon.

with a strong handle at one end as shown, also with good rubber castors which will not injure the floor as the wagon is rolled over it. The things for the dining-table can all be piled on this wagon, and two trips instead of a dozen will be necessary to "set" it, one for the dishes, another for the eatables.

To Separate Beeswax from Comb.

Have sufficient water boiling in a large vessel. Put the comb in a strong, loosely-woven bag and tie tight. Submerge in the water and work the contents in the sack with a wooden paddle until the wax all comes to the top of the water. This can be skimmed off easily as it cools if the sack is weighted to the bottom of the vessel.

Putting Up Tomatoes.

Can plenty of tomatoes this year in pint jars. They are very easily canned and are splendid in winter for stewing or making into soup. Also at any time, if done without salt, they may have sugar and orange or lemon added to them and so be transformed into tomato preserve.

Donald and four grown-up relatives attended divine service one Sunday morning. Donald selected the aisle seat, and when the contribution plate was passed, deposited in it the combined offerings of his family. The vestryman, not realizing this, moved as though to pass the plate to the others in the pew, when he was arrested by a highly-pitched, distinctly audible stage whisper, announcing, "paid for five."

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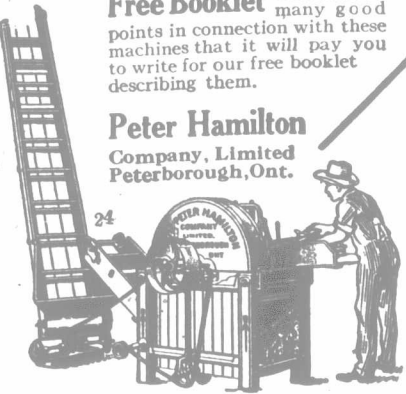
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The Beaver Circle

Our Junior Beavers.

So many letters from our junior Beavers are on hand that this week's space is all for them. First we shall have a story and then some of the letters, although many still must be held over.

The Grocer Rat.

BY JO L. G. MCMAHON

A rat found a piece of gingerbread; so he put it on a teeny, weeny counter, which he built himself, and sat down behind, on a rattan chair, under an umbrella, to wait.

"Now," said he, "I'm a grocer. I dare say that before long I shall become very rich." And smiling at the thought, he began to rock slowly back and forth with his paws folded across his stomach.

"Let me see," he continued, "I intend to sell this piece of gingerbread for two cents. If ten people buy it, that will be twenty cents. Just a minute—that won't do—they wouldn't. If I want to get twenty cents, I'll have to sell it for twenty cents to twenty—oh, dear, oh, dear—I'll never figure it out. Now, let me get this right—" And he counted on his fingers, "one, two, three," right up to ten, "one, two, three, four," right up to ten, over and over again until he got so confused and drowsy he fell fast asleep.

He had not been dozing long when he was startled by a "thump, thump" on the counter. There stood a rabbit with a silly little smile.

"Good morning, grocer," said the rabbit.

"Good morning, rabbit," said the rat.

"I believe," said the rabbit, standing on one foot and wiggling his nose, "I believe I'll have some lettuce."

"Would you like some gingerbread?" asked the rat.

"No, lettuce," replied the rabbit.

"Oh—lettuce," said the rat, "but I haven't any!"

"Well, good-by then," said the rabbit, and he left.

The rat sat down in his rocker and he thought and thought and thought. Suddenly he jumped to his feet, exclaiming:

"Of course! I must get some lettuce! I can't seem to sell gingerbread."

So he took the gingerbread to a farmer, to whom he said:

"Farmer, will you give me a head of lettuce for this gingerbread?"

"Surely," said the farmer, and he did so.

"Thank you," said the rat, and he trotted off home.

He was busily arranging his little counter once more when a song-sparrow came down the lane, whistling a beautiful song, a summer song all about "the winter's gone away" and "I'm happy all the day" and "grass and 'warm breezes'" and "brooks full of water" and everything, and he had just reached the very high, sweet part about, "Oh, I love everything ever so much," when he caught sight of the rat and his little store.

"Good morning, grocer," said the sparrow.

"Good morning, sparrow," said the rat.

"I'll take some wheat," said the sparrow.

"Would you like some lettuce?" asked the rat.

"No, wheat," replied the sparrow.

"Oh, do have some lettuce," begged the rat.

"But I want wheat," insisted the sparrow.

"But I haven't any," said the rat.

"Well, good-by then," said the sparrow, and away he went whistling.

Now, that's strange," thought the rat, "lettuce doesn't seem to be the thing to sell after all. I really feel that I must get some wheat—yes, sir, get some wheat."

So he ran down along the stream until he reached the mill and said to the miller:

"Will you please give me a little wheat for this nice head of lettuce?"

"It is a fine head of lettuce," said the miller, slowly turning it round and round,

"I know, but will you give me some wheat for it?" asked the rat after a short pause.

"Oh—yes—why to be sure," said the miller, and he gave the rat a double hand-

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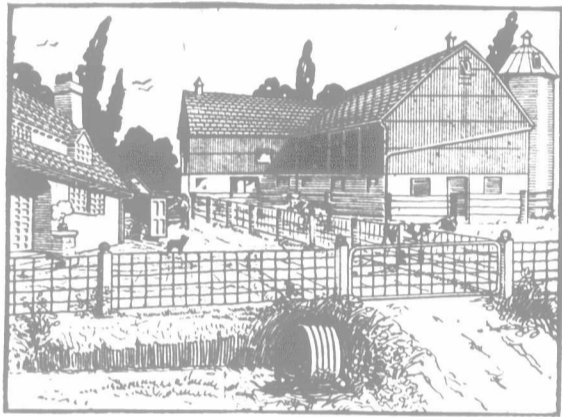
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"You're very good," said the rat, and he started off home.

Before going far, he met a little girl, a sweet little girl, but she looked quite sad. "Well, well," said the rat, "I don't understand this! You have curly hair and you're five years old and you've got on a pretty little dress. Why should you be sad?"

"Oh, rat," said the little girl, trying to be brave, although one big tear did roll down her nose, "I've lost my gingerbread."

"Oh," said the rat, "And I'm so fond of gingerbread."

"Oh."

"And it was the last piece," she added. "Oh," said he, "Oh. You don't know how sorry I am. I was just thinking. I tell you what, you come with me and we'll see what can be done," and turning, he led the way rapidly back to the mill.

"I say, miller," he called, "will you take back your wheat and give me my lettuce?"

"Will I—what?" said the miller, first bowing gravely to the little girl.

"Will you take back your wheat," repeated the rat, "and give me my lettuce again?"

"Why, certainly," said the miller, "yes" certainly. Here's your lettuce. But keep the wheat. Goodness knows, I've plenty."

"Thank you, thank you," said the rat, and away he hurried once more, followed by the little girl.

They crossed a field of clover and crawled beneath a fence and found the farmer mending his rake with a piece of wire.

"Farmer," gasped the rat, dropping down, quite breathless, on the woodshed step, "will you take back your lettuce and give me that gingerbread?"

"Yes, I don't mind," said the farmer, "only I tell you what," he added pleasantly, "just you keep the lettuce. Look, I've eleven rows in my garden!"

"So you have," said the rat, "but I thank you just the same," and he gave the gingerbread to the little girl, adding to the farmer, "It's really hers, you know—she lost it—I found it—and then you got it."

"I thank you, too," said the little girl, and she and the rat started off together.

"It was very good of you to get my gingerbread," said the little girl, "and, by the way, as you still have the lettuce and the wheat, why don't we have a party?"

"Fine," said the rat, "come home with me and we'll have it on my little counter."

So she agreed, and away they went. Soon they came to a tree in which the sparrow was singing his summer song. Beneath it lay the rabbit, on his back, in the grass, smiling his silly little smile.

"Oh, this is fine," cried the rat, "they'll be company!"

Upon being invited, the rabbit hopped up from the ground; the sparrow flew down from the tree; and they all went on together.

When they reached the rat's home, they drew up the chair for the little girl, and the rat spread the food on the counter.

"What, lettuce?" cried the rabbit, wiggling his nose and wagging his tail.

"Yes, and it's for you," said the rat.

"What! Do I see wheat?" chirped the sparrow.

"Yes, and it's for you," said the rat.

"And I have my gingerbread," said the little girl. "But rat, what is there for you?"

"Why, I don't know, I hadn't thought of that," said he, scratching his ear.

"Then we must all share with you!" cried the rat, and they did so: the girl broke her gingerbread in half; the rabbit picked out the tenderest leaves of his lettuce; and the song sparrow divided the wheat into two neat little piles.

After the feast was over, the rat's companions bade him "good day" and all walked up the lane.

"Well, well," said the rat, with a contented sigh, as he seated himself in his chair once more. "I seem to have made no money, but I have become rich just the same for I've made three friends to-day. Three friends," he went on, counting them on his fingers, "first the rabbit, second the sparrow, third the little girl," and he smiled happily. "First the rabbit, second the sparrow, third the little girl," he murmured again and again, until the first thing he knew he was fast asleep.

McCall's Magazine.

Junior Beavers' Letter Box.

Dear Puck and Beavers. I go to school every day. Our teacher's name is Helen Greaves. I have about a mile to walk to school. I have three brothers and two sisters. My oldest brother has been to

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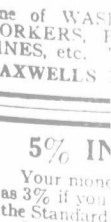
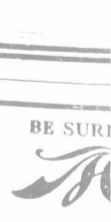
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the front, but got wounded in that great battle Vimy Ridge. He is in a hospital in England. I wish this awful war was over. Well, as my letter is getting long I will close, hoping the w-p. b. will be asleep when my letter arrives.

ARMOUR MARTIN. (Age 10 years.) Seagraves, Ont.

Dear Puck and Beavers.—This is my second letter to your magnificent Circle; as I didn't see my letter in print I thought I would try again.

My father has taken "The Farmer's Advocate" for a number of years and likes it fine. I live about a mile from school. Our teacher's name is Miss Batterman. For pets I have a pup whose name is Pinna; he is a fine fellow and I am teaching him tricks. I have read a few books. Ones I like to read are "The Life of General Garfield," "The Boy Scout," and "The Pathfinder." Hoping I may become a Beaver this time, I will close with a riddle.

Why is a lady like a soldier? Ans.—Because the lady powders her face and the soldier faces the powder.

Hoping the w-p. b. is enlisted before this arrives.

GEORGE D. HILTS. Marmion, R. R. No. 1, Ont. (Age 11.)

Dear Puck and Beavers.—This is my first letter to "The Farmer's Advocate." I go to school every day and like our teacher; her name is Miss G. I. Campbell. She has been teaching in our school for three years. I am in the senior second class, and am eleven years of age. We have a library in our school and have quite a number of books in it. I have read quite a few of them: "What Katy Did," "What Katy Did Next," and a lot more. My parents live in Summerside, but I stay out at my grandma's and grandpa's in the country, and like it great. We live about a mile from a station, and I go into Summerside pretty nearly every Saturday. I was to a birthday party to-day and had a good time. Well, as my letter is getting long I will close with some riddles.

What four letters will frighten a thief? Ans.—O. I. C. U.

Spell dry grass with three letters. Ans.—Hay.

Twenty sheep went through a gap, twenty more along with that, 3 times seven, 10 and 11, 3 and 2, how many's that? Ans.—Five.

Why is the man in the moon never rich? Ans.—Because he spends all his quarters getting full.

I would like some of the other Beavers of my own age to correspond with me if they would write first. I remain,

LULU I. CURTIS. Wilmot Parley, P. E. Island, Canada.

Dear Puck and Beavers.—I have never written to your charming Circle before. My father has taken "The Farmer's Advocate" for a number of years and we enjoy reading it. I always read the Beaver Circle first. I like reading very much. Some of the books I have read are: "Anne of Green Gables," "What Katy Did," "What Katy Did Next," "Alice in Wonderland," "Line Upon Line," "David Copperfield" and many others. Will close now with love to the Circle.

INGERSOLL, ONT. NELLIE LESLIE. (Age 10, Class Jr. III.)

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father has taken "The Farmer's Advocate" for several years, and we all like it fine. I like to read the little Beavers' letters. I have one brother near Saskatoon and one sister in Stratford. I go to school every day I can. As spring is past nearly all the wild flowers have disappeared, but you can have some fun fishing. We have a two-hundred acre farm. We have two woods and a creek flows through one. We have many little chickens. We got out sixty little chickens on the twenty-fourth of May, and now we got forty-eight. Well, as my letter is getting long I will close with some riddles.

How can a dunce beat a good scholar? Ans.—With a stick.

When can you look at the sun? Ans.—When it's out.

Well, I hope the W-p. b. is on its honeymoon. I wish some of the little Beavers of my age would write to me.

HICKSON, ONT. EDITH A. C. BERG. (Age 10, Jr. III.)

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Gossip.

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Breeders of dairy cattle should not fail to study the advertisement of Ira Nichols, Burgessville, Ont. On Wednesday, Aug. 29, 1917, he is selling twenty-five head of registered Jerseys at the Royal Hotel stables, Woodstock, Ont., and from them can be chosen prize-winners and the get of such. Some of them were first prize winners at Toronto and the Guelph Winter Fair, while many of their progeny will be included in the sale. See the advertisement and write to Mr. Nichols for full particulars regarding this splendid offering of Jerseys.

In a letter to "The Farmer's Advocate" regarding the pigs they are offering for sale through these columns, William Stevenson & Son, Science Hill, Ontario, write: "We have a number of pigs sired by Curly King 9997 and more sows bred to him. Curly King is a splendid sire and a great show pig. He is a past silver medalist at Toronto Exhibition and winner of first prize in his class. We are also offering a limited number of pigs whose dam is Lily 14155. Lily was first in a class of under nine months and over six, and also reserve champion at the Guelph Winter Fair last year. The rest of the herd are of quite as good breeding but have never been in the show-ring."

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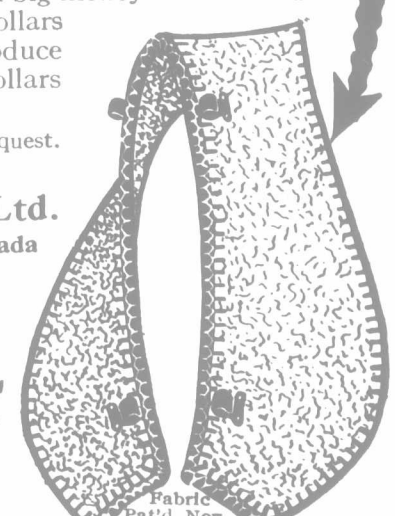


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arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out, the majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them. **SMITH & RICHARDSON, Columbus, Ontario**

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

OAKLAND---50 SHORTHORNS

A herd of feeders, breeders and milkers that give satisfaction wherever they go. One bull for sale, 12 months, white, extra milk strain. Also females, any age. Priced so you can buy. One of the finest bulls in Ontario heads this herd.
JNO. ELDER & SONS, HENSALL, ONTARIO

SALEM SHORTHORNS

Herd headed by Gainford Marquis (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915 and 1916. Can supply cattle, both sexes, at all times.
J. A. WATT, ELORA, ONTARIO

Glengow Shorthorns, Cotswolds

For the present we have sold all the Cotswolds we wish to spare, but we have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding, and are thick, mellow fellows, bred in the purple. **WM. SMITH, Columbus, Ont. Myrtle, C. P. R., Brooklin, G. T. R., Oshawa, C. N. R.**

SHORTHORN CATTLE AND LINCOLN SHEEP

Young cows and heifers of the best Scotch families. Sire in service, Sittyton's Selection -86508- The winning pen of long-wool lambs, all breeds competing, at 1916 Guelph Winter Fair, came from this flock. Imported and home-bred rams and ewes for sale. New importation will arrive in July.
R. S. ROBSON & SON, DENFIELD, ONT.

Lump Jaw

The first remedy to cure Lump Jaw was

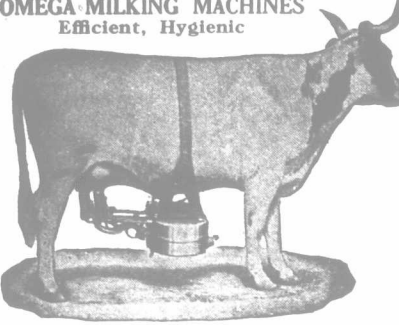
Fleming's Lump Jaw Cure

and it remains to-day the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser
Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.
75 FLEMING BROS., Chemists, Ont.
Church Street - Toronto, Ont.

OMEGA MILKING MACHINES

Efficient, Hygienic



The pail and teat-cups are suspended from the cow's back. The teat-cups cannot fall to the floor and suck up manure or straw. The Omega has no rubber tubes. The Omega milks as fast and as clean as is possible by hand. Leading dairymen in Canada, U. S. A. and Europe are using the OMEGA. It's a perfect milker. WRITE TO-DAY for free booklet, describing the special features of the Omega. C. Richardson & Co., St. Mary's, Ontario.

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

Ontario Creameries, Limited
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CREAM

We are open to buy cream both for churning and table use.

ASK ANY SHIPPER
about our service and prompt returns.

Ask for Prices.
The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

The Toronto Creamery Co., Limited
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MESSRS. A. J. HICKMAN & CO. (LATE HICKMAN & SCRUBY) COURT LODGE, EGBERTON, KENT, ENGLAND, exporters of

PEDIGREED LIVE STOCK

of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

Pure Cottonseed Meal

"Dixie Brand".....41% protein, fat 5.50%
"Porfat Brand".....38.55% protein, fat 5.00%
"Danish Brand".....36% protein, fat 5.00%
"Creamo Brand".....20 to 25% protein, fat 5.00%
Mills conveniently located in every cotton-growing State in the South.
Prices on application in car lots or less.

Fred. Smith, 32 and 34 Front St. W., Toronto

PLASTER HILL HERD

DUAL-PURPOSE SHORTHORNS
A few choice bull calves coming on, also a few heifers in calf to Butterfly Champion 110726.
F. Martindale & Son, Caledonia, Ont. R. R. 3

Dr. Bell's Veterinary Medical Wonder, 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.
Dr. Bell, V. S., Kingston, Ont.

Growing Tobacco Seed.

EDITOR "THE FARMER'S ADVOCATE":

In years past the lack of strong, viable seed has caused the tobacco growers of Ontario considerable trouble and some loss. This can easily be remedied if each tobacco grower would select a few seed plants and grow his own seed.

At the Harrow Tobacco Station it has been found that good, home-grown seed not only produces plants which mature earlier in the field but also produces earlier more uniform seedlings in the plant-bed than foreign-grown seed.

In selecting seed plants the field should be carefully gone over before topping, and about twice as many plants selected as are required for the amount of seed to be produced. The plants selected should be typical of the type of tobacco grown, early, with a good-sized leaf of good shape, and the distance between the leaves on the stalk should not be too long. The number of leaves on the plant and the color of the leaves about ripening time should also be taken into consideration.

After the first selection these plants should be carefully studied from time to time and any developing undesirable characteristics discarded. Before the first flowers open each seed head should be trimmed up until only the fine top branches are left. It should then be covered with a 14-pound manila bag, the mouth of which is tied loosely around the stalk just below the lowest remaining branches. About every ten days these bags should be removed, and all suckers, late pods, and fallen blossoms taken out, after which the bags should be replaced. When the seed pods are all formed and begin to turn brown the bags should be taken off and the seed heads allowed to ripen in the open. By doing this the pods mature earlier and there is not so much danger of them moulding.

After the greater portion of the seed pods turn brown the seed heads should be harvested and hung in a dry place for about two months, after which they may be shelled.

D. D. DIGGES,

Supt. Tobacco Station, Harrow, Ont.

Two-Thirds Of Canada For Timber Crops.

One of the surprises to those visiting Europe in peace times is the method by which all lands are carefully examined and put to work according to their capacity. No farmer is permitted to locate on non-agricultural soil, and at the same time, good farming soil cannot be retained under such a crop as timber. Canada has only made a beginning at applying such a policy of business efficiency in the use of the nation's natural resources. Thousands of farmers are today tied to farms that produce only a few dollars an acre, their efforts and ambitions practically wasted in a time when manpower is at a high premium. Taking the whole of Canada's area, more than two-thirds will never produce field crops, and the bulk of the two-thirds will prove profitable under only one crop, namely, timber.

All efforts for the protection of the forests against fire and other forms of needless waste aim to keep in a productive condition those millions of acres that can never grow field crops. Canada holds a tremendous national advantage in her forests, but from the beginning of the last century about two-thirds of the original inheritance has been destroyed by fires. Nearly all modern countries have put an end to forest fires by carefully organized protective systems.—Canadian Forestry Association.

Canadian Ayrshire Herd Book.

The Canadian Ayrshire Herd Book, volume 26, is off the press, and through the courtesy of the Secretary of the Association a copy has been received at this office. This volume contains the pedigrees of cows and bulls numbering from 48921 to 53025. It is a large, neatly-bound volume and contains a number of splendid illustrations of Ayrshire cattle. The minutes of the annual and directors' meetings held in 1916, together with the names of the animals which qualified in the Record of Performance test, are given.



4 out of 5 Cars

Take them as you find them—lift the hoods and look at the spark plugs—you will find, on an average, that four out of five motors

—are exclusively equipped with

Champion Toledo

Dependable Spark Plugs

Fords—Overlands—Studebakers and Maxwells are factory equipped with Champions because exhaustive tests have proved that they insure the greatest efficiency in the performance of these motors.

There is a Champion for every type of motor, gas engine or tractor.

Your protection is in the Champion guarantee of "Complete satisfaction to the user—Free Repair—Replacement or Money Back."

Dealers everywhere sell Champions for every kind of motor. Look for the name on the porcelain.

Champion Spark Plug Co. of Canada, Limited, Windsor, Ontario

Pleasant Valley Farms

Offers for sale, (Imp.) Loyal Scot, conceded to be one of the best stock bulls in the country. Also good young bulls and females with the best of individual merit and breeding. Inspection invited.
Geo. Amos & Sons, Farm 11 miles east of Guelph, C.P.R. Moffat, Ontario

1854 MAPLE LODGE STOCK FARM 1917

SHORTHORNS AND LEICESTERS
Three shearing rams, some lambs and ewes for sale.
MISS CHARLOTTE SMITH R. R. 1, CLANDEBOYE, ONT

BURNFOOT STOCK FARM

Breeders of high-record, dual-purpose Shorthorns with splendid conformation for beef.
Visitors welcome.
S. A. MOORE, Prop. Farm one mile north of Caledonia CALEDONIA, ONT.

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 prizewinning bull, Brownclade =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, Ontario

CREEKSIDE FARM SHORTHORNS

We have for sale, at present, a number of young things by our former herd sire, Clan Alpine (the Claret-bred bull, by Proud Monarch). We like them—so will you. If it's young bulls or a few females you need, we would welcome a visit from you. Write or phone. Visitors met by appointment.
Geo. Ferguson, Elora Station, C. P. R., G. T. R. Salem, Ontario

IMPORTED SHORTHORN BULLS

We have several newly-imported bulls of serviceable age. Cruickshank, Marr and Duthie breeding, as well as a number of choice, home-bred young steers, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. **RICHARDSON BROS., Columbus, Ont.**

Imported Shorthorns

Thirty-five imported cows and heifers, forward in calf to service in Scotland; also five imported bulls. Our 1916 importations are all choicely bred. Have also home-bred bulls and females. Farm half mile from Burlington Junction. Write or call and see us. **J. A. & H. M. Pettit, Freeman, Ont.**

SPRUCE GLEN SHORTHORNS

of such popular strains as Minas, Fames, Miss Ramsdens, Florences, Emilys, etc.
Have still a few young bulls—thick, mellow fellows, fit for service.
JAMES MCPHERSON & SONS DUNDALK, ONTARIO

SHORTHORNS

Imported and Canadian bred. **A. G. FARROW, Oakville, 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.

Blairgowrie Shorthorn Offering

Imported and Canadian-bred. More bulls to select from than any herd in Ontario, all of serviceable age; also a large number of females, which are bred right and priced right. All the stock for sale
JOHN MILLER, Ashburn, Ont. Myrtle Station, C.P.R. and G.T.R.

Robert Miller, Stouffville, Ont.

still has a few Shorthorn bulls fit for service, and some females that are as good as can be found for the quality, and the freight will be paid.

Write for anything in Shorthorns or Shropshires. One hour from Toronto.

Riverside Holsteins

Herd headed by "King Johanna Pontiac Korndyke" a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 34.94 lbs. butter in 7 days. His ten nearest relatives have official record that average of Canada was bred here. Choice young bulls for sale.
J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.

TRADE MARK
Wilkinson Climax B
REGISTERED
Ensilage and Straw Cutter

Our "B" machine, built especially for the farmer. A combination machine—it will cut and deliver green corn into the highest silo or dry straw or hay into the mow. 12-inch throat, rolls raise 6 inches and set close to knives—solid, compact cutting surface. Can change cut without stopping. Can be reversed instantly. Direct pneumatic delivery. Knife wheel carries fans. No lodging, everything cut, wheel always in balance. Steel fan case.

Made in two styles—mounted or unmounted. We also make larger type machines for custom work. Ask your dealer about this well-known machine and write us for new catalog showing all styles.

THE BATEMAN-WILKINSON CO., LIMITED
41 Temple Ave.
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CENTRAL CANADA EXHIBITION

Ottawa, Sept. 8th to 17th, 1917

\$25,000 In Prizes for Live Stock

New York Hippodrome, Vaudeville Acts, Balloon Ascensions, Aviator, \$5,000 for Horse Racing, Pure Food Show, Gov't Exhibits, Dog Show, NIGHT SHOW—Magnificent Spectacle and Fireworks. British advance in Mesopotamia—Destruction of the Forts at Kut-el-Amara. Entries Close August 31st. Reduced Railway Rates. Stewart McClenaghan, President, J. K. Paisley, Mgr. & Sec'y.

Tamworths

Young sows and boars from several litters just weaned.
HEROLDS FARMS, Beamsville, Ont.
(Niagara District)

Morrison Tamworths and Shorthorns. Bred from the prize-winning herds of England. Tamworths, both sexes; 12 sows, bred to farrow in August and September. Young boars, from 2 to 10 months old. Shorthorns, males and females. Chas. Currie, Morrison, Ont.

TAMWORTHS

Young sows bred for Fall farrow, and a nice lot of young boars for sale. Write: John W. Todd, R. R. No. 1, Corinth, Ont.

YORKSHIRES Sows 170 lbs. and under not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon Duke still at the head. Tell us your wants. Wm. Manning & Sons, Woodville, Ontario.

Gloversdale Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable. C. J. LANG, R. R. No. 3, Burketon, Ontario.

Sunnyside Chester Whites and Dorsets. In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. W. E. Wright, & Son, Gainsworth, Ont.

Polands, Durocs and Berkshires Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or South-downs. Everything priced to sell. Cecil Stobbs, Leamington, Ont.

DUROC JERSEY SWINE. My herd won all the champion prizes at London, Toronto and Windsor, 1916. Young stock for sale, pairs not akin. Come and see them, or write. Trains met by appointment. Culbert Malott, R. R. No. 3, Wheatley, Ont.

Pine Grove Yorkshires Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction. Joseph Featherston & Son, Streetsville, Ont.

PROSPECT HILL BERKSHIRES Young stock, either sex, for sale, from our imported sows and boar; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. John Weir & Son, Paris, Ont., R. R. 1.

Meadow Brook Yorkshires Sows bred for Sept. and Oct. farrow, and a few choice boars fit for service. Young pigs, both sexes and all ages. Prices right. G. W. MINERS, R. R. No. 3, Exeter, Ontario. (Huron County)

SPRINGBANK CHESTER WHITES Young sows bred and more ready to breed. Young pigs, pairs not akin. A number of them are sired by Curly King—9997—, who has been a winner at Toronto and London the last several years. Wm. Stevenson & Son, Science Hill, Ont.

Questions and Answers.
Miscellaneous.

Dividing Land.

A man wills 200 acres more or less of land to his four children, 50 acres to A B and C, and to D 50 acres and the overplus if any. Can C claim any more than the deed calls for? The lot is 62 rods wide; how many rods long can C claim? D sells half of the overplus to E. Can E claim the rest of the overplus?
J. S.

Ans.—C cannot claim any more than what the deed calls for. If his lot is 62 rods wide it should be 129.03 rods long. If E buys half of a piece of land from D that is all he can lay claim to.

Leucorrhoea.

I have a mare that discharges a thick, whitish substance. Could you tell me the cause and what would cure it?
H. S.

Ans.—The symptoms are those of leucorrhoea, which is usually a troublesome disease to cure. Flush out the womb daily with a gallon or a little more of a warm solution of some antiseptic. In the meantime feed well and give three times daily 40 drops carbolic acid mixed with a pint of cold water and sprinkled on her feed or given as a drench. It will require patience as it may take some time of careful treatment to effect a cure.

Bats in a House Wall.

Bats are in between the brick wall and the inside wall of my house. I have tried smoking them out with chloride of lime and sulphur but it does not work. I cannot find any hole in the wall, the bats just seem to push their way in. What will exterminate them?
H. M.

Ans.—The problem is not an easy one. There must be some opening around the roof or between the roof and the wall where the bats gain access. If thorough smoking will not drive them out, then the only thing to do would be to search for these openings and close them tightly. It is claimed that if you could disturb them a few times they will change their place of abode, but this is not easily done when they are in such an inaccessible place.

Destroying Sow Thistle.

Is there any way in which I can kill sow thistle in cultivated fields?
A. S.

Ans.—Sow thistle is a weed which is rather difficult to eradicate. It not only spreads by the seeds being carried in the air but the roots are dragged by the cultivator points. We have found that allowing the plant to grow up in the spring, then plowing it under about the first week in June and keeping cultivated to prevent any growth showing for a couple of months will go a long way in destroying the plant. Thorough cultivation, either of the summer-fallow, root or corn field, will give results. Another method is to summer-fallow up to the first of July, then sow rape in drills about 28 inches apart and give two cultivations through the summer. The rape soon covers the drills and smother out any weeds which might have escaped the cultivator. The rape makes excellent fall pasture for stockers and sheep.

Feeding Horses.

What is the proper time to feed a horse oats? Some feed oats then hay, then afterwards water them. Others water first, give a little hay and then feed oats after the horse has fed a while. Should a horse be given oats as soon as it is brought in off the grass in the morning?
E. S.

Ans.—Horsemen have different methods of feeding their animals with apparent success. The fact remains, however, that when they adopt a system they adhere to it regularly. We prefer giving a horse a drink and then allowing it to feed on hay for some time before feeding the oats. A horse requires a drink when it comes in from the field. If it is fed oats and then hay there is a chance that the oats will not be as fully digested as if the hay were fed first. It must be remembered that a horse's stomach is comparatively small and some claim that when oats are fed first that the hay will crowd them out of the stomach before they are digested. Unless we were going to use the horse immediately we would prefer leaving it a while before feeding oats after being brought off pasture.

The New HIP-ROOF adds still Another Advantage to the TORONTO 1917 MODEL SILO



The TORONTO Silo, with its airtight, heat-retaining walls of 2" Spruce and its tight-fitting doors, has always made an exceptionally high quality Ensilage.

QUALITY and QUANTITY

With the new Hip Roof it will now make an exceptional quantity as well! That's because the hip makes it possible to tramp the ensilage thoroughly right up to the eaves, and so put in several tons extra.

We ship the Toronto Silo ready to go up with the least possible amount of work on the job. Its first cost is moderate, and it saves money every year by making "more and better ensilage".

The TORONTO Pneumatic Ensilage Cutter driven by a TORONTO Gasoline Engine, is the hardest, most satisfactory rig you can use for filling this or any other silo.

Write for our Booklet, "Toronto Ensilage Equipment". It will tell you about all the fine points of both Silo and Ensilage Cutter.

We also manufacture Windmills, Pumps, Stable Equipment, etc.

Home Grinding Certainly Pays with the New Toronto Grinder

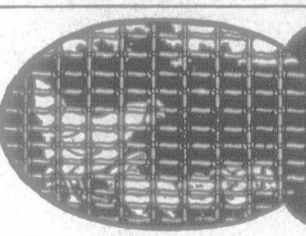


Our new "TORONTO Special" makes home grinding as simple and practical as running the fanning mill or pulping roots. Special "crackers" inside the grinding plates make it possible to grind the meal much finer, without extra power. All unnecessary parts have been eliminated, and vibration greatly reduced.

Write for Booklet describing this and other TORONTO Grinders.

Ontario Wind Engine and Pump Co. Limited
Dept. "F"
TORONTO and MONTREAL.

PEERLESS POULTRY FENCE
A Real Fence—Not Netting



Strongly made and closely spaced—making it a complete barrier against large animals as well as small poultry. Top and bottom wires No. 9—intermediate No. 12 wire—made by the Open Hearth process which time and other tests have proven to be the best. Send for catalog. Ask about our firm and occasional special. Agencies nearly everywhere. Agents wanted in unassigned territory. The Sanwell-Henke Wire Fence Company, Ltd., Winnipeg, Man., Hamilton, Ont.

FARNHAM OXFORD DOWNS

Flock established from the best flocks in England. Our initial importation was among the first in 1881. Having quit the showing, we now make a specialty of breeding animals. Special attention to flock headers. They will give a good account of themselves in the showing ring. Offering for the present season:—120 yearling rams; a few two-year-olds; 80 superior yearling ewes. A nice lot of ram and ewe lambs coming on.

HENRY ARKELL & SON, R. R. No. 2, (Tel. 355r 2 Guelph,) GUELPH, ONT., CAN.

MAPLE SHADE SHROPSHIRE

My Minton ram is proved by his first crop of lambs to be the best sire used on this flock during the past 20 years. Orders for ram lambs are already being received. If you really want a good one, drop a line or have a look. NO SHEARLINGS. Will. A. Dryden, Brooklin, Ontario Co., Ontario

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.

H. M. VANDERLIP, Breeder and Importer, R. R. 1, Brantford, Ont.
Langford Station on Brantford and Hamilton Railway.

OAK LODGE YORKSHIRE HOGS

We have a large selection of extra-good boars and sows of different ages. We are selling at prices that make it attractive for the purchaser. Write for what you want.

J. E. Brethour and Nephews, Burford, Ontario.

ENGLISH LARGE BLACK PIGS

We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported LARGE BLACKS. Stock excellent for crossing with other breeds. Their English reputation is that they grow large and fast. Also for sale, pure-bred English Berkshires. Lynnore Stock Farm, F. Wallace Cockshutt, Brantford, Ont.

Berkshires

My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strains of the breed, both sexes, any age. Adam Thomson, R. R. No. 1, Stratford, Ont. Shakespeare Station, G.T.R.

Costs No More Than a "Span"—

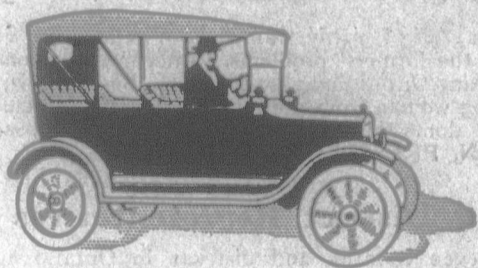


It seems almost impossible, but it is true that you can get a handsome, comfortable, speedy 5-passenger Ford motor car for no more than it would cost you for a span of good driving horses, a carriage and harness.

The initial cost of a Ford car is so small that every progressive farmer can readily purchase one.

And who wouldn't rather motor to town, to church, to the railway station, to the neighbor's, than drive?— especially when it is three times as fast to motor, more comfortable and less expensive.

The low cost of running the Ford makes motoring possible for the masses, where it was formerly a rich man's luxury. It makes motoring a matter of good business, especially for those whose time is valuable. And with labor so scarce no one needs the time-saving Ford so much as the busy farmer!



Ford

Touring - - \$495

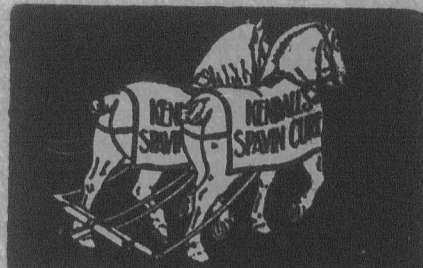
Runabout - \$475

F.O.B. FORD, ONT.

Ford Motor Company of Canada, Limited

FORD - - - ONTARIO.

34



LAME HORSES PUT BACK TO WORK QUICK

TRY Kendall's Spavin Cure. It has saved a great many horses—has put them back to work even after they had been given up. Over 35 years of success has proved the merit of

KENDALL'S Spavin Cure

HUNTSVILLE, ONT., March 9th, 1916. I have used a good many bottles of Kendall's Spavin Cure for sprains and lameness and I do not think it has an equal, especially in stubborn cases. Kindly send me a copy of your Treatise on the Horse. G. T. YOUNG.
Sold by druggists everywhere. \$1.00 a bottle, 6 bottles for \$5.00. Get a copy of "A Treatise on the Horse" from your druggist—write
Dr. B. J. Kendall Company,
Enosburg Falls, 114 Vermont

LIFT YOUR CORNS OFF WITH FINGERS

Tells How to Loosen a Tender Corn or Callus so it Lifts Off Without Pain.

A noted Cincinnati chemist discovered a new ether compound and called it Freezone, and it now can be had in tiny bottles as here shown for a few cents from any drug store.

You simply apply a few drops of Freezone upon a tender corn or painful callus and instantly the soreness disappears, then shortly you will find the corn or callus so loose that you can just lift it off with the fingers.

No pain, not a bit of soreness, either when applying Freezone or afterwards, and it doesn't even irritate the skin.

Hard corns, soft corns, or corns between the toes, also toughened calluses, just shrivel up and lift off so easy. It is wonderful! Seems magical! It works like a charm! Your druggist has Freezone. Ask him!



FERTILIZERS

For Fall Wheat and Seeding Down

High Grade—Write for Prices

THE W. A. FREEMAN CO. LIMITED HAMILTON CANADA

MAKE YOUR OWN

Lager Beer in your own home with HOP MALT EXTRACT
Made only of pure hops and malt. Makes real beer with the good old flavor that is appetizing and health building. Conforms to Temperance Act.
Small Tins \$1.00; Large \$1.50 Prepaid. Full directions with each tin. Agents Wanted.
DEPT. A
Hop Malt Co., Beamsville, Ont.

Steel Rails

FOR REINFORCING BRIDGES AND BARN DRIVEWAYS
CUT ANY LENGTH
JNO. J. GARTSHORE
58 Front Street West Toronto

BEEKEEPER'S SUPPLIES

HIVES - FRAMES FOUNDATIONS - ETC.
THE TILLSON COMPANY, LTD. TILLSONBURG, ONT.

NORTHERN ONTARIO

Millions of acres of virgin soil, obtainable at 50c. an acre in some districts—in others, free—are calling for cultivation.

Thousands of farmers have responded to the call of this fertile country and are being made comfortable and rich. Here, right at the door of Old Ontario a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:—

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.
Hon. G. H. Ferguson, Minister of Lands, Forests and Mines

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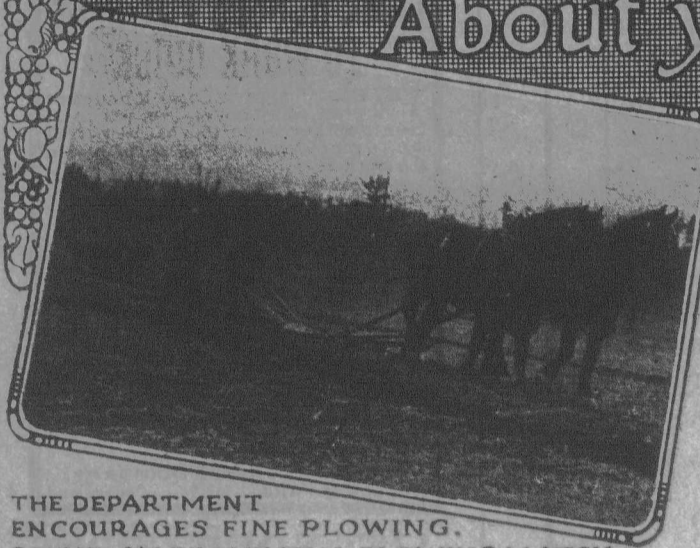


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Ontario Live Stock Branch

Full information is given on all phases of the live-stock industry, live-stock association memberships, co-operative shipments of live stock to Eastern and Western Canada, grading and marketing of wool, stallions in use in Ontario, and the stallion law and requirements for inspection and enrolment.

Assistance is also given to sales of live stock and to local poultry associations.

As Secretary of the Sheep Breeders' and Swine Breeders' Associations, Ontario Horse Breeders' Association, Ontario Stallion Enrolment Board and Ontario Provincial Winter Fair, the Director will give full information about any of these. WRITE DIRECTOR R. W. WADE.

Ontario Fruit Branch

For the fruit grower this branch has valuable information. If necessary a personal visit will be made to your farm. Expert advice on planting of orchards, vineyards and small fruits—the best districts, types of soil, varieties and the most approved methods, cultivation, cover crops, thinning, packing in boxes and barrels; any question, in short, relating to practical fruit growing in Ontario. WRITE DIRECTOR P. W. HODGETTS.

Three important divisions are also under the supervision of the director.

(1) **Experimental work in fruit and vegetable growing.** Information regarding value of varieties; canning fruits and vegetables; irrigation of fruits and vegetables; breeding new varieties of fruits and seed growing. WRITE E. F. PALMER, DIRECTOR HORTICULTURAL EXPERIMENT STATION, VINELAND, ONTARIO.

(2) **Orchard Diseases and Pests.** Nurseries and orchards are inspected; information given regarding the identification of, and treatment for, orchard pests. WRITE L. CAESAR, Provincial Entomologist, O. A. College, Guelph, Ontario.

(3) **Beekeeping.** Regarding any phase write MORELY PETTIT, Provincial Apiarist, O. A. College, Guelph.

The Vegetable Division

For information concerning vegetable growing both in field and under glass; results of experimental work on a field scale, and the practical use and value of all new appliances, materials and methods, and the control of insect pests and fungous diseases of vegetables, write S. C. JOHNSTON, VEGETABLE SPECIALIST.

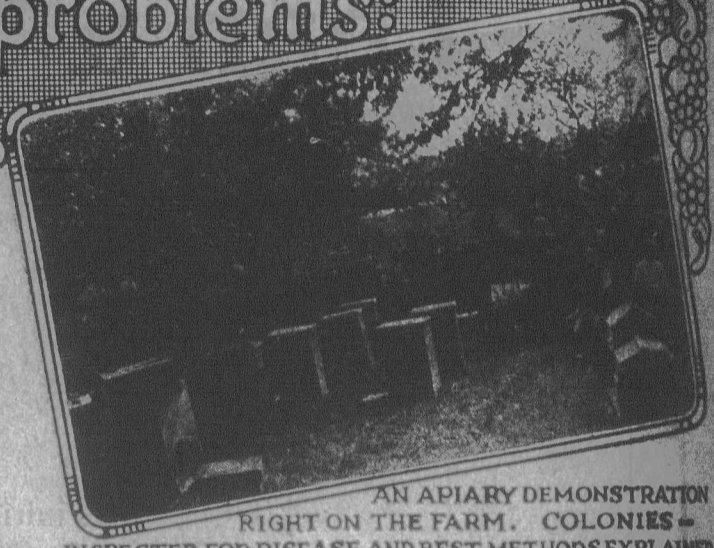
Ontario Agricultural Societies Branches

The Superintendent directs the work of agricultural, horticultural and vegetable growers' societies, including the payment of grants provided for the purpose; has charge of the field competitions and exhibits of prize-winning grain, sheaves and vegetables from these; appoints judges, upon request, for competitions and fall fairs; arranges for the conventions of the Ontario Association of Fairs and Exhibitions and of the Ontario Horticultural Association and acts as secretary of the Ontario Vegetable Growers' Association and of the Ontario Plowmen's Association. Questions in any way related to any of these associations will be answered by SUPERINTENDENT J. LOCKIE WILSON.

Ontario Institutes Branch

Gives information and assistance to Ontario Farmers as follows: (1) The organization and management of boards of agriculture, farmers' clubs, Women's Institutes, Patriotic Work, Girls' Clubs, etc.; short courses in live stock and seed judging, and demonstration-lecture courses in foods and cooking, home nursing and sewing. (2) Supplies speakers for

THE ONTARIO DEPARTMENT OF AGRICULTURE invites you to make the fullest use of its staff of farm experts. Each branch listed below wishes to co-operate with you. Write directly to each official, addressing him, unless otherwise directed, at Department of Agriculture, Parliament Buildings, Toronto. Your request will receive prompt attention.



AN APIARY DEMONSTRATION RIGHT ON THE FARM. COLONIES INSPECTED FOR DISEASE AND BEST METHODS EXPLAINED.

agricultural meetings of associations and for courses as listed above. (3) Supplies milk record forms and general dairy information. (4) Upon request will supply to agricultural speakers slides (for projector) of weeds, live stock, poultry and poultry houses, and charts for illustrating lectures.

For complete information concerning any of the above or upon any phase of the work of Boards of Agriculture or Women's Institutes write SUPERINTENDENT GEORGE A. PUTNAM.

Ontario Co-Operation and Markets Branch

"We can produce crops with the best" say many farmers; "but we can't sell to advantage." This branch is maintained to aid farmers in the selling of their produce and to encourage active, practical co-operation of every nature, such as the organization and business management of co-operative societies—difficulties to be overcome, securing a proper manager, how to incorporate and to raise funds; lists of farmers clubs, women's institutes, wholesale produce houses and other prospective customers; how best to ship live stock; bookkeeping systems for co-operative associations. Valuable information is also available regarding the grading, packing and selling of Ontario farm products. Especial assistance is offered in the organization and management of new or old co-operative associations either by letter or by personal visit. Write DIRECTOR F. C. HART.

The Ontario Agricultural College

At this Institution a staff of highly trained farm experts are in close touch with the farmers' affairs and the farmers' problems. Information upon practically every agricultural subject affecting Ontario may be secured. Besides this, the College offers the young man and young woman from the farm a practical and efficient education in agricultural science and domestic science respectively, at very small cost. Write DR. G. C. CREELMAN, PRESIDENT.

District Representatives

In forty-seven counties and districts in Ontario agricultural college graduates are placed who bring to the farmer's very door the latest in science as discovered by agricultural experts and the best in practice as applied by successful farmers. Write or call by telephone the District Representative in your county. For general information regarding the work write C. F. BAILEY, ASSISTANT DEPUTY MINISTER.

Ontario Bulletin Service

Each year new bulletins and pamphlets are added to an already long list. They are compiled by experts and give authoritative information upon different phases of the farmer's business. They are free and may be secured upon request. Write for a list of those published and select the ones which will be most useful to you. For any bulletin prepared by any branch or division write THE ONTARIO DEPARTMENT OF AGRICULTURE, PARLIAMENT BUILDINGS, TORONTO.

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by securing this information. So don't trust to memory. Preserve this page and use it as a yearly calendar. Then you will always know exactly whom you can get the information from which you want—just when you want it. When writing please mention this advertisement and give as complete information regarding your problem as possible. It will insure a prompt and satisfactory reply.

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