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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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LIV.

LONDON, ONTARIO, JANUARY 30, 1919.

No. 1375



Always First

A study of fences and fence records shows that Frost Fence is justly entitled to first place among woven wire fences.

The exclusive Frost Tight Lock—look at it—is different from all others in design and is one BIG reason why Frost Fence has greater strength. The Frost Lock is the strongest part of the fence, not the weakest as in ordinary fences.

Then there are the Frost Wave Laterals with their wonderful resiliency and reserve power.

And the Frost Fence Wire, every strand of which is drawn and galvanized in our own mills.

Frost Fence has given years of service in Canada and proven its quality, serviceability and value to the complete satisfaction of the owners of millions of miles of this Canadian-made fence.

The policy and reputation of the Frost Company is well-known to the farmers of Canada who have shown their appreciation of Frost Quality, and the Frost system of selling through responsible dealers, by making Frost Fence first in sales.

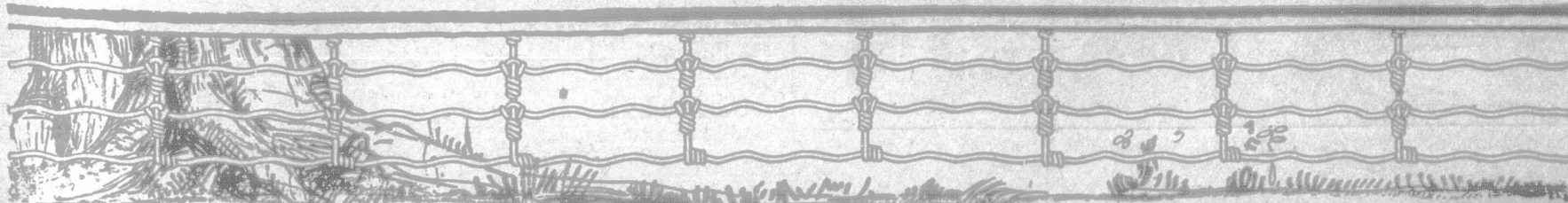
While the price of Frost Fence is higher than before the war our margin of profit is narrower. It is proportionately lower than any other necessity made from steel or iron, and while such vast quantities of steel are required for rails, locomotives, cars, bridges, buildings and other re-construction work overseas there is no more likelihood of reductions in fence prices than in reductions in the prices of grain and meat which are also needed overseas.

It is good business to buy Frost Fence now.

Frost Steel and Wire Co. Limited
HAMILTON, CANADA

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Frost Fence First





Dreadnaught

TIRE CHAINS

Go Anywhere with your car


BUT go prepared for every kind of road.
Carry chains *every time*. Because chains will give your wheels the grip that means safety for you and the car.
And carry Dreadnaught chains, because no others grip so firmly—no others are so easily put on.
Dreadnaught Tire Chains have a special Long-lever Fastener. The links are electric-welded and case-hardened, insuring strength and long wear; rim-chains are rust-proof.

*Your garage man can supply you with these superior chains.
Write us direct if you have difficulty obtaining them.*

McKINNON COLUMBUS CHAIN LIMITED
St. Catharines, Ont.

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\$1000 MAPLE SYRUP PRIZE CONTEST

For Maple Syrup and Sugar

Every maker of Maple goods in Eastern Canada should be interested in this remarkable contest. Our last competition before the war showed us how to arrange the prize money so that more competitors will be sure of being in the winning class. This spring will offer an unprecedented opportunity in the development of the Maple industry, and this contest will help to classify and arrange the various grades and qualities of Syrups and Sugars produced in Canada. Why not equip your grove and enter this contest? For full particulars, write to

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The Waterloo Boy



The Three-Plow Tractor for Ontario.
The Tractor that makes good.
The Tractor that has stood the test.
The Tractor that is guaranteed under all conditions.

Write for free catalogue, prices and any information wanted.

THE ROBERT BELL ENGINE & THRESHER CO., LIMITED
Selling Agents for Ontario. Seaforth, Ont.

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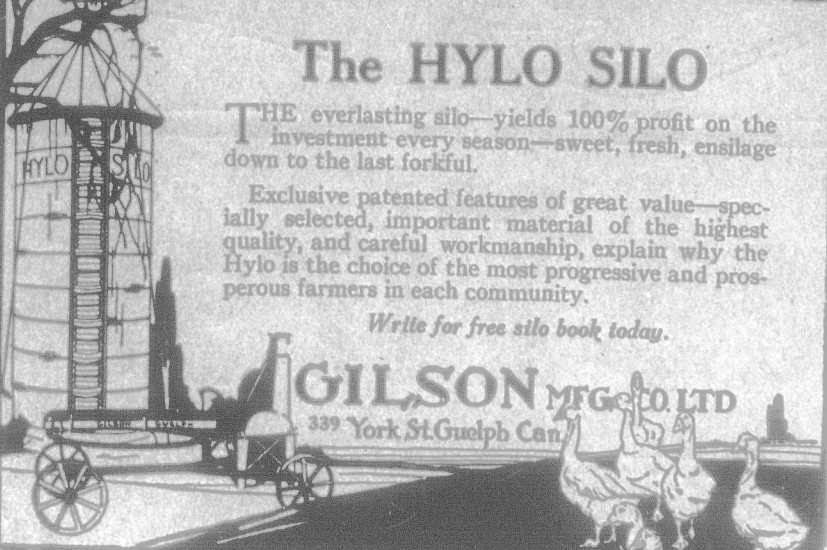
The HYLO SILO

THE everlasting silo—yields 100% profit on the investment every season—sweet, fresh, ensilage down to the last forkful.

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Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Prices of everything you have been buying have been soaring, but, by careful management, we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price, and easy-payment plan, stating what size you are interested in.

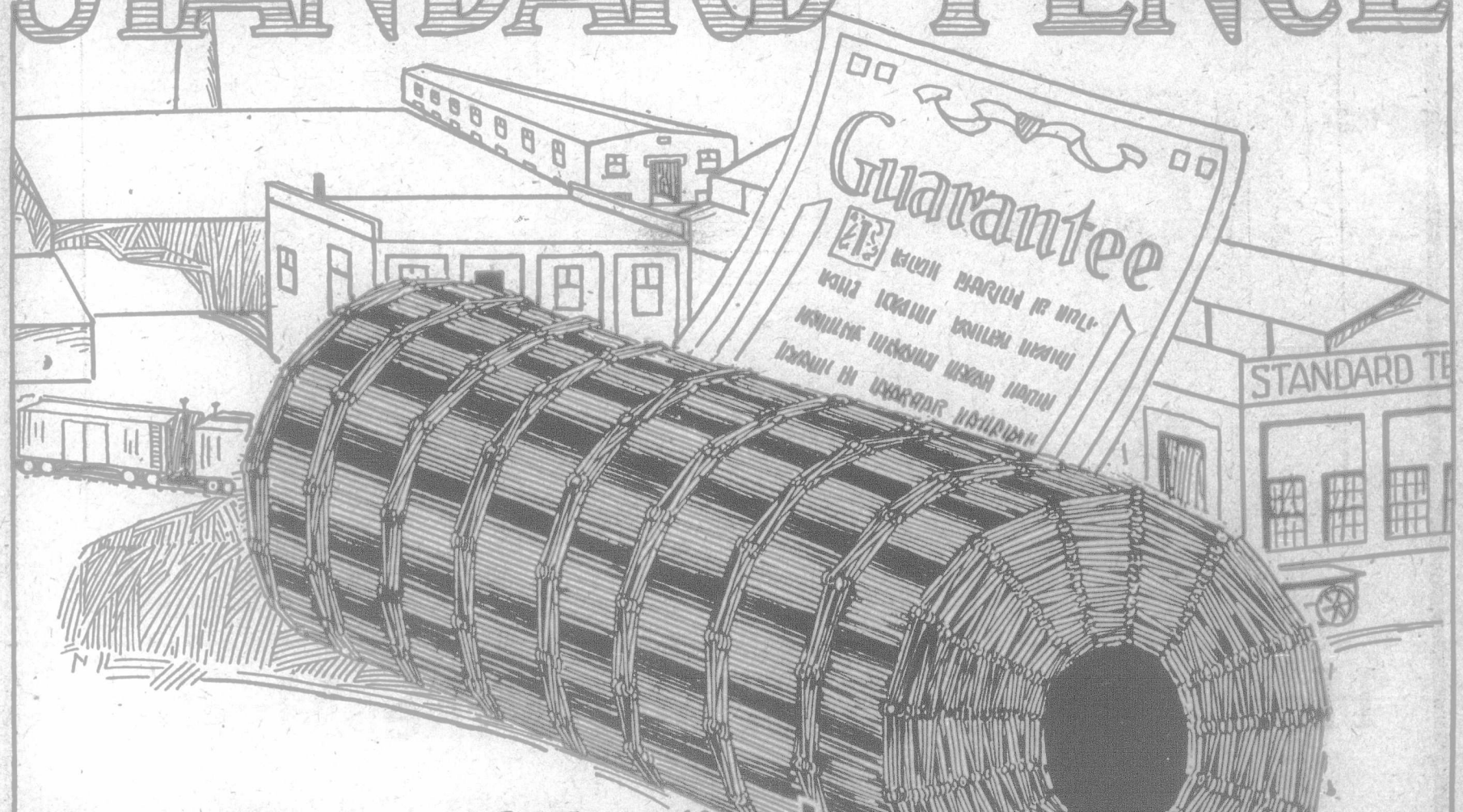
GILSON MFG. CO., Limited, 259 York St., Guelph, Ontario

When writing advertisers will you kindly mention The Farmer's Advocate.

Seed Corn—A quantity of Select Early Leaming, Longfellows and White Cap Yellow Dent. A card will bring full particulars.
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Grown in South Essex from native seed. A quantity of early White Cap high germination. Order early for the amount is limited. **Stanley R. Hall, Essex, Ont. R. R. No. 7.**

STANDARD FENCE



Our Ideas of Trading are the same as YOURS about a fence

You look on the fence you put up to-day as a job that will stand for years to come.

It is an investment.

Good money goes into it, your time, wages for your help.

If you build a fence you want it to stay there, to look good, to stand up against the weather. You don't want the tantrums of your stock to knock it out of shape.

Well, then, we feel the same way about our business.

Back in 1904, when we started trading with farmers, we figured on *staying* in business.

We aimed to build up a trade and hold it; a trade that would grow a little every year; a sound, square, substantial trade with farmers.

We had to pass up a lot of "easy money" because we would not sell a poor fence. There used to be lots of business in cheap fences, too. There still is.

We let it go.

We wanted Standard Fence to mean good fence, and we knew the farmers would soon get to know it.

We wanted to put out a fence we could guarantee—on a positive money-back basis.

We do guarantee Standard Fence to be exactly as we represent it.

Fourteen years of that sort of trading have done exactly what we aimed they should. A great Fence institution has been built.

Now, *you* profit by our policy.

Building *only one quality* of Standard Fence in large quantities, we can keep down the cost. And because of the quality, Standard Fence never gives trouble to our customers, which would cost us money to adjust—a further saving in cost of doing business.

The result is that Standard Fence can now be laid down at as low a figure as many a fence that is not as good—even lower than some.

Think NOW about the Fence you will put up this Spring. Decide to do the job right. Write for our prices on Standard Fence—the lowest you can get on a guaranteed fence—the only kind of fence you will want to invest in. Write to-day.

STANDARD TUBE & FENCE CO., LIMITED

Woodstock, Ontario



...native seed. A high germination. limited. Stanley No. 2.

...Ontario

...ENGINE & LIMITED Seaforth, Ont.

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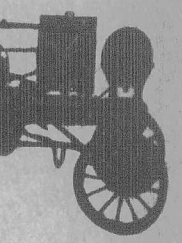
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...rices and any infor-



How Mrs. Smith Solved the Mystery

"I'VE followed the recipe most carefully in every particular," declared the bride. "I mixed and kneaded the dough properly. Why in the world does my bread not come out well like other folks'? It's a mystery to me!"

"It's simple," said her neighbor, "it's the flour. If you want your bread to come out always right you must have flour that is always the same *unchanging* good quality."

"Do flours vary in quality?"

"Naturally they must," explained Mrs. Smith, "for wheats vary in strength in different localities. Some wheats contain more gluten than others. And plenty of gluten is necessary in the flour because that is the elastic substance which helps the yeast to make the bread to rise properly. It is highly nutritious."

"If you want your bread always to come out right, take my advice, follow the recipe exactly, but use

Cream ^{of} the West Flour

(Milled according to Government Standard)

"But why this particular flour?" asked the bride. "Because it is a good, strong, high gluten flour for bread, and its quality is always uniform; it never varies."

"How can one know it never varies?"

"Because Campbells test samples of all the wheat they get to find out just what it contains. So it is easy for them to keep it uniformly good. I'll show you my own bread," offered Mrs. Smith. She

went across the way to her home and returned with a splendid swelling loaf.

The bride tasted it and was delighted. "Oh, if I could only make bread like that!" she exclaimed.

"Certainly you can," said her neighbour, "Cream of the West is a dandy flour for bread. I ought to know for I have used it for years, I'm sure you'll be just as satisfied as I am with it. Try it, my dear."

The Campbell Flour Mills Company, Limited
West Toronto, Ontario

SIMONDS

The Saw Makers

THE advantages of the Simonds Crescent Ground Cross-Cut Saws are that they cut easier, saw faster and remain sharp longer than any other saw and this we unequivocally guarantee. This is because they are Crescent Ground and tempered by a special process in our own crucible mill. These factors give the teeth a toughness and hardness which enables them to hold and keep a keen, sharp cutting edge longer than any other saw. Write for Booklet.

SIMONDS CANADA SAW COMPANY, LIMITED,
St. Rmi St. and Acorn Ave.,
MONTREAL, Quebec.
Vancouver, B.C.
St. John, N.B.

6-7

We Make and Temper Our Own Steel.



HASTINGS GROWN

SEEDS

Are acclimatized and Hardy.

We can offer the following while our stock lasts.—

	Per Bus.
Red Clover—No. 2.....	\$28.00
Alsike—No. 2.....	18.00
Timothy—No. 2.....	7.50
No. 1 for Purity.	
W.B. Sweet Clover.....	15.00
(re-cleaned)	
Our Special Northern Grown Alfalfa.....	19.00
(Stock Limited)	
	Per cwt.
Our Special Mixed Alsike and Timothy.....	20.00
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New Cotton Bags 55c.

We pay freight on shipments of 3 bus. or over. Samples on application.

CHARLES E. BISHOP & SON
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Come to Headquarters for COTTON SEED MEAL and CAKE

Our Brands:
Jay Dove Owl Lone Star
38% Protein 38% Protein 41% Protein 43% Protein
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Crown Life Bldg. Toronto, Ontario



When you buy a piece of land you put a fence around it.

WHY is it that the first thing you do when you buy a piece of

land is to fence it—provided, of course, that the fence is not already there? Because a fence is a form of protection your farm can't get on without.

Yes, sir, we must have fences of some description. If there are a lot of stones on the land you can make a fence of them—and clean the land at the same

time. The old "snake fence" was made of rails split from the timber cut to clear the land. Nails and wire were scarce in those days. Snake fences are now out of date—they made a breeding spot for weeds. Woven wire makes the best fence, perhaps; but out west, where many farmers boast of a "mile furrow," two strands of "barb" strung on willow posts is a "legal fence." In the Eastern Provinces you will see fences made of stumps on edge eight feet high.

And here is another point about fences. If the frost squeezes out the fence posts during the winter, the first thing you do in the spring is to take down the post-hole auger and put them back. If the horses scratch against the rails and knock them off, you immediately put them up again. If you have a cow that is bad on fences (a "breachy" cow she is called in some



parts) she goes to the butcher, that's all there is to it. Fences are a certain amount of trouble and expense, but you can't help that. You must have the protection that they give your crops and your live stock. There is no use growing crops if you haven't fences to protect them.

There is no use raising stock if you haven't fences to keep them in. One of the strict rules of farming is "keep the fences tight."

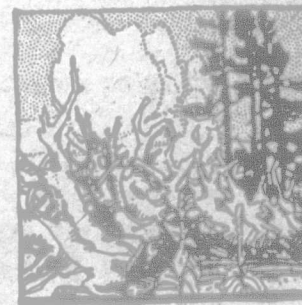
The reason we have talked so long about fences is this: Fences are one form of protection; Life Insurance is another.

Take this case for instance: Some young fellow buys a farm. He pays so much cash and gives a mortgage for say \$5,000. He can pay the interest all right, but how is he going to pay the principal? How is he going to be sure that if anything happens to him his family will be protected against the foreclosure of the mortgage? There is only one sure way, and that is to build

a Life Insurance fence around the place. He should take out five thousand dollars of Endowment Insurance at once, or more perhaps. From the very minute he pays the first premium his family is protected. If he dies (no man has lived forever) his family can pay off the mortgage from the insurance money and own the farm in full. If, as probably will be the case, he lives for the term of the insurance, he will get from the Company a cheque for \$5,000, with profits in addition. He can then pay the mortgage himself or use the money as he likes. That's real protection!



If you will go to the window now and look over your place, you can see the fences and cross fences. Just think how impossible it would be to farm without them. Then think of how much more important is the protection that Life Insurance would give you and your family. Can't you see how necessary it is that you erect a Life Insurance fence about your place and about your family?



Then let us tell you about an Imperial Policy that will exactly fit your own particular needs and circumstances. Just complete and mail to us the coupon in this advertisement. You do not need to invest if you do not care to. But get the information. You will find it interesting.

I will read your booklet if you mail it to me. But it must be understood that this does not commit me to any further action.

THE IMPERIAL LIFE ASSURANCE COMPANY of CANADA

HEAD OFFICE . TORONTO, ONTARIO

Branches and Agencies in all important centres

I am.....year of age and could save and invest \$.....each year

Name.....

Address.....

Fertilizers Pay on Wheat

Experimental Tests Show that Fertilizers Increase Wheat Yields

1918 Tests at Michigan Agricultural Experimental Station



Graze from equal Fertilized and Unfertilized Areas

Gains from Fertilizers obtained in Experimental Tests:
 Ontario Agricultural Experimental Union reports—
 5.2 bus. per acre Fall Wheat gained. } Average of 5 years test.
 8.3 bus. " " Spring " }
 Indiana Experimental Station reports—
 7.06 bus. per acre Wheat gained. Average of 10 years test.

"Exactly what should be used will depend upon the local conditions, but in any case it should be remembered that it will pay better to use liberal amounts of fertilizer on wheat now than in ordinary times, because wheat prices are likely to remain high and it will not require much increase in the yield to pay for liberal fertilization."

—Prof. A. T. WIANCKO, B.S.A. in "Maintain the Wheat Acreage and Increase the Yield for 1919." Published by Purdue University, Lafayette, Indiana.

Make Your Gain on Wheat while Prices are High

Write for our booklets on Wheat Production, Fertilizers and Improved Methods of Farming

Soil and Crop Improvement Bureau of the Canadian Fertilizer Association
 1111 Temple Building - Toronto

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BEAVER BOARD FOR BETTER WALLS & CEILINGS



You can't expect Beaver Board results unless this trademark is on the back of the board you buy.

MADE IN CANADA

Easy to Get Easy to Use

Beaver Board is a "ready to use" wall and ceiling that can be nailed directly over the old papered partitions. It goes up quickly and easily.

Beaver Board comes in large, sturdy and flawless panels. It is real lumber built up from the pure fibres of white spruce. Each panel is treated with the patented Sealite process to prevent warping and to provide an ideal surface for painting and decorating.

Think of the things you can do with Beaver Board—renew one room after another, build entirely new rooms in waste spaces, change the old summer kitchen into a comfortable all-the-year-round room; build a work-room; line the garage, while dairy, poultry houses, bins, etc., are other examples.

You'll find Beaver Board Dealers with Beaver Board stocks in practically every locality. The stock will provide you with an assortment of sizes. Usually the dealer will make rural deliveries, but Beaver Board is so compact that you can easily take it out yourself.

"Building More Comfort Into the Farm Home" is a new interesting booklet. Write for a copy.

THE BEAVER CO., LIMITED
 312 Wall Street, Beaverville, Ottawa
 Plants at Ottawa and Thorold, Ont.
 Distributors in principal cities. Dealers everywhere

BIG MONEY in TRAPPING THIS YEAR

RAW FURS

FREE Hallam's Trappers' Guide—66 pages; illustrated; English or French; tells how and where to trap; what bait and traps to use; is full of useful information.

Hallam's Trappers' Supply Catalog—36 pages; illustrated; of trappers' and sportsmen's supplies, at low prices.

Hallam's Raw Fur News—Gives latest prices and advance information on fur market. Address, using number given below.

John Hallam Limited
 931 HALLAM BUILDING, TORONTO.

QUALITY COUNTS

What about that new house you've waited four years to hold? Of course you'll want

MILTON BRICK

So get your order in now for early shipping.

MILTON PRESSED BRICK CO., LIMITED
 Head Office: MILTON, ONT. Toronto Office: 50 Adelaide St. W.

Bissell Silos

Maximum results with beef or dairy cattle are impossible unless regular rations of green fodder are supplied. The Silo saves hundreds of dollars' worth of green feed, which can be fed when summer pastures are dried up, and in winter. We make Silos in popular sizes, air-tight, substantial, with all practical improvements. Pine or spruce staves preserved in creosote oil, two-step doors; steel hoops; every item and arrangement is correct. Bissell Silos are the best for the money. Let us prove it. Consult us freely. Literature and prices on request.

T. E. BISSELL CO., LTD
 10 Hill St., Elora, 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 particulars as to terms, regulations and settlers' rates, write to:

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

FURS

SKUNK, COON MINK, WEASEL

Are all bringing good prices. Ship your lot to us and receive highest market figures, returns made same day as shipment is received. Shipping tags furnished free. Write for some and price list.

WM STONE SONS, LIMITED
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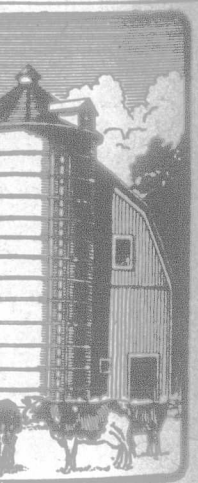
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LIV.

LONDON, ONTARIO, JANUARY 30, 1919.

1375

EDITORIAL.

Look to the quality of your seed for next spring. The winter is passing.

Low-grade seed is a poor investment at any price. Sow the best and cleanest that is available.

A series of live-stock meetings will be held in Toronto next week which all breeders should attend.

More live stock means larger crops to feed more live stock. Live stock and good farming are inseparable.

There is nothing small about the express companies when they ask for increases in their rates. The proposed tariffs are ridiculously high.

Early-hatched chickens make the best winter layers. Pullets hatched in March or early April have made the best winter records at Guelph.

Experiments and investigation have shown that Northern Ontario seed potatoes are better than the native stock in Old Ontario for seed purposes.

Farmers in Middlesex County, Ontario, last week reported dandelions in full bloom on their lawns. However, garden parties have not started yet.

Weeds increase fast enough on most farms without buying weed seeds with the clover and grasses. See that the small seeds you get this spring are free from noxious weeds.

Clover is one of the best fodder crops grown and it is also a soil builder. Increase the amount of seed per acre this spring, rather than lessen it. Scanty seeding very often results in failure to get a catch if the season is at all unfavorable.

Producers of live stock and live-stock products should not view with too much alarm the present weakness in the market. Our future lies in the realm of live stock, and the herds and flocks should be improved and kept up to strength. It is no time now, when a temporary weakness develops, to drop out and lie down.

The Canadian National Live Stock Council will, no doubt, come up for consideration at the breeder's meetings next week. The complaint has been made that the organization is not representative. At no other place can the matter be threshed out so well as at the annual breeder's meetings, and everyone interested in the future of the live-stock industry should go prepared to discuss the question and offer suggestions. So far the Council has not had an opportunity to demonstrate its usefulness, for it has not been sanctioned by all the breed associations, nor has it been supplied with ample funds. The Council is suffering from want of publicity, which breeders far and wide should endeavor to give it, after they are satisfied that it is organized along the proper lines. This is a matter for the breeders of pure-bred live stock and producers of live-stock products to decide, but unfortunately the latter class have no effective organizations through which to express themselves. We believe the Live Stock Council can be made a power for good in Canada, and at the coming meetings it should be firmly established and liberally endowed with funds. Since the inception of this Council we have felt that the Maritime Provinces should have representation, and now that the Council is before the breeders no stone should be left unturned to make it a strong and representative organization.

The Agricultural Department at Ottawa.

This country is passing through a very critical era which calls for determination on the part of every citizen; it requires confidence in the future of Canada; it demands the strongest support every citizen can give to the Government so they can meet the momentous problems with which they are confronted. It matters not to us now what party or combination of parties may be guiding the destiny of this Dominion. There must be team work between Government and people for any failure on the part of the former reflects with untoward results upon the industries, the laborers and the rank and file of Canadian citizenship. The splendid army, the wonderful production of food and the crowning success of the last Victory Loan are examples of loyalty and support on the part of the people, but on the other hand there is a feeling that the Agricultural Department at Ottawa lacks that dynamic force so necessary in these times when plans and schemes must be put into execution in order to safeguard our future, both from the viewpoint of the agricultural industry and the financial stability of the country. Competition between the commercial interests of all nations was never so keen as now, and it is likely to continue so for the next few years; and as Canada is essentially an agricultural country it would seem necessary to ensure a market for the output of the farms, not so much to put shakles in the farmer's pocket as to bolster up our basic industry, to meet our heavy foreign obligations and prevent national penury. The situation calls for action, but what do we find?

The future of agriculture in Canada is inseparably linked up with live stock; we cannot get away from it. But when live-stock men approach the Department of Agriculture at Ottawa they find plenty of optimism, noble aspirations, high ideals and great expectations, but no action. There have been meetings with packers and there have been meetings with stockmen, but no action. The Department has shown a readiness to admit the wisdom of proposals made, and there have been plenty of promises, but there it ends. That faculty of getting things done (always conspicuous by its absence in the Agricultural Department at Ottawa) has apparently vacated for good, and at a time when it is so imperative that accepted proposals and matured plans be carried to their logical conclusions and translated into deeds.

The present uncertainty surrounding our market for live-stock products is the logical outcome of war. It should have been anticipated. In "The Farmer's Advocate" of November 15, 1917, one year before the armistice was signed, we advised "That an aggressive foreign service be immediately provided for the placing of agricultural products on foreign markets. This should be inaugurated to insure a permanent place on these markets for Canadian products after the war."

Throughout the last six months there have been suggestions, requests, exhortations and demands that a live-stock representative be sent overseas to grease the way for Canadian products, and keep the Dominion informed. However, the matter has been juggled about, and while the juggling is going on word comes that no more Canadian bacon is wanted. In the meantime we have been lapping up the Food Controller's figures about the almost incomprehensible decreases of live stock in Europe and the imperative duty of Canadians to produce. There are decreases no doubt, but what we want to know is whether there is going to be a demand for our output or are other nations, in a better position than we to provide credits and products, going to command the situation. Canada is supporting a delegation overseas at the present time, and Dr. J. W. Robertson is our alleged agricultural representative. Nevertheless, all this information about congested ports and full storehouses on the other side comes to light

only when the Allied Purchasing Commission cease to buy. Had producers known the facts, had they been informed that a period of quiet was impending, they would have viewed the situation more philosophically, and the uneasiness which now prevails would have been forestalled. Such is the result of inaction and unpreparedness. At time of writing a report is current that the packers are sending a representative overseas to investigate conditions. It is to be hoped they do, but producers want a statement either from the Government or from some qualified, disinterested representative of the country at large.

In certain advertising sanctioned by the Department of Agriculture, and appearing early in the year, the following paragraph was included:

"It is anticipated that by the time the Allied Purchasing Commission is concluded Canada will have an accredited agent in Great Britain to look after the marketing of Canadian agricultural products, with particular reference to meat and dairy produce."

"Anticipating" or expecting gets us nowhere. Something should have been done in this regard six months ago. There must be action after the various branches have their plans and suggestions accepted by the Minister. For years there has been growing in the office of the Live Stock Commissioner an accumulation of schemes, plans, proposals and such like to bring about an expansion of our export trade and ensure its stability. However, there they rest, but they might as well be in the Archives.

We are confident that live stock will be the sheet anchor of Canadian agriculture, and that producers should press forward in the upbuilding of their herds and flocks. Temporary disturbances will arise and prices are sure to decline; war values cannot exist in peace times. Nevertheless, there is a great market overseas that should be opened up for the benefit of Canadian agriculture; it is necessary for the welfare of the farming industry; national prosperity depends upon it; the country demands it. Canadian producers are willing to join and aid this great expansion movement. The Government should act.

The Experimental Union.

For three and thirty years the Ontario Agricultural and Experimental Union has been conducting co-operative experiments throughout the province, disseminating improved varieties, distributing superior seed, and in various ways exerting a remarkable influence on the farm crops of Ontario. It links up the experimental plots at the College, where Dr. Zavitz has done invaluable work, with the farms way back on the sideroads and concessions. Quietly it has carried on, but during its existence over 92,000 distinct tests have been made by farmers between the Great Lakes and the Province of Quebec. Had it not been for the Experimental Union that individual stalk of barley which surpassed its fellows in the test plot at Guelph would altogether likely have failed to become the famous O. A. C. No. 21 now so commonly grown. The same is true in regard to many other crops, and now the Union is endeavoring to test out cultural methods co-operatively under widely varying conditions.

In spite of the many handicaps over 3,600 experimenters took part in the work last year, and this speaks volumes for the future of the Union, but we believe the organization could be made more virile and useful if an attempt were made to have the outside experimenters come to the Experimental Union meetings and relate their experiences with the particular trials they conducted on their own farms. The number of co-operative experimenters at a Union meeting is a negligible factor. The results of the season's tests are compiled by the Secretary and imparted to a meeting of short-course students, regular students, a few Experimental Union supporters and the Press. The outcome over a series of

The Farmer's Advocate and Home Magazine.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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JOHN WELD, Manager.

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years has been gratifying indeed, but an institution as good and useful as the Experimental Union is, should introduce new features and thus develop with the times. What we have to suggest is that experimenters from various parts of the province be induced to attend the annual meetings, there to tell of their successes and failures with the tests conducted. An experiment can be counted a success even if it gives a negative result, for any test is a success so long as it reveals the truth. These discussions would make the meetings more interesting and instructive and add valuable information to the Annual Report. According to Dr. Zavitz there are 600,000 acres annually devoted to potatoes in the Province of Ontario. If the yield could be increased only one bushel per acre through the use of improved varieties, prevention of disease and better cultural methods brought about through the instrumentality of the Experimental Union, the additional production would pay the expenses of a good many delegates to Guelph. It would not be necessary to have a large number of experimenters present but, of course, the more the better, provided they come prepared and able to discuss the experimental work. The experimenters themselves, or a reasonable percentage of them, should attend the Annual Meeting and supplement their written reports with information concerning the tests made in their districts. This, we are sure, would add strength to the Union and increase the splendid service it is already giving.

Sandy Sees the Fair.

BY SANDY FRASER.

I took in the Winter Fair at Ottawa last week, and if ye hae no objections I'll be givin' ye a few o' my "impressions," as these travellers say when they get back frae some foreign country that they want to tell ye all about. When ye think about it I guess that's the main thing in travelling an' seeing the world, juist in gettin' hame again an' being able to mak' people sit up an' open their eyes at the stories o' what ye hae seen an' done. Ye hae the floor, for the time being, sae to speak.

However, there wis naething o' a very highly exciting nature happened tae me this time in Ottawa. It has gone dry since I wis there last, and so has Hull, across the river, so everything wis nice an' quiet, includin' myself.

When I got tae the city and had my dinner I says to myself, "I'll juist tak' a rin up to see how they are

gettin' along wi' that new Parliament Building they hae been warkin' on for a number o' years noo, and into which a lot o' my guid money has gone already. I hae been unco' slack wi' them not to hae kept a closer watch on what they were daein', an' the way they were spendin' my hard-earned dollars."

However, when I got up the hill an' had a look around the place I had to admit that the contractors were makin' a fairly good-lookin' job o' the new headquarters for the future law-makers o' this "great Canada o' ours," as they will be sayin' in their speeches round about election time. It's a fine lookin' pile o' rock, onyway, and weel pit together. It must hae been maistry Scotch masons they had on the work, I'm thinkin'. And when they get the finishin' touches put tae it, such as the big tower that's gaein' tae be put up in the centre, and the wee towers that will be built here an' there in ither parts, it will be juist about as fine a sample o' what architects an' builders can dae in their ain lines as can be found onywhere in the country. It will no be far behind the auld building that went wi' the fire a few years ago, and when I say that ye ken I'm sayin' a guid deal for it.

When I got down to Howick Hall, which is the name o' the building in which the Winter Fair is held, about the first person I met wis an auld friend o' mine that I used to call Mack, by way o' savin' time. We are baith mair or less interested in cows, especially the "black an' whites," so we started out to see them first. But we got disappointed in a way. There wisna mair than nine or ten Holsteins, altogether, in the stable. And it wis pretty near as bad wi' the Ayrshires. There wis a better showing o' Shorthorns an' some ither breeds o' beef cattle, but naething to what there used to be in the auld days. Some said the reason wis that the breeders didn't know the show wis to be held until it wis too late for them to get their stock in shape for it. Ithers said that the "flu" wis responsible sae there ye are. It's to be hoped that they willna have the same excuses next year, onyway.

But the horses were fine. There wis no discount on that part o' the show. Heavy an' light, they were weel represented in numbers as weel as quality. A good horse is about as fine an animal as ye can set eyes on, (unless maybe it's a Holstein cow), and Mack an' I spent mair time than we had intended to on this part o' the exhibition.

After a while Mack proposed that we go over to the poultry department an' see what wis to be seen there. Bein' good-natured, I went along wi' him, but I hae never been able to educate myself up tae the point where I could tak' muckle o' an interest in hens and the ither birds that the majority o' farmer's wives say there's sae much money in, such as turkeys an' geese an' ducks. However, I went along wi' Mack, as I said, he bein' interested to the extent o' always havin' a couple o' fried eggs for his breakfast.

To be honest about it, it wis a great sight to see all those birds, an' I might say as weel that it wis a great sound to hear them. It wis worse than ony woman's Sewing Circle meeting ye ever listened to frae the outside. Wi' the roosters arranging for future duels an' seein' which o' them could put up the biggest bluff, an' the hens braggin' about the last egg they had laid or the next one they were going to, there wis what Mack called a "very deil o' a racket." But, accordin' tae all accounts, it wis the "best ever," and it's no' for the likes o' me to criticize. The Lord made them all, and it must hae been for some guid purpose. And all the different breeds o' them! There must hae been about a hundred. There's no excuse for ony man that's thinkin' o' goin' intae the business not being suited. I didna ken it wis possible to mak' sae mony different kinds o' a hen.

Weel, after we had stayed lang enough wi' the hens to satisfy Mack's curiosity, we dodged past the milking machine agents, and after payin' oor respects to the horses again, an' takin' a last look at the Holsteins, we went back up town wi' the intention o' findin' oot if the high cost o' livin' wad prevent us frae gettin' somethin' to eat. "Let's gang around to the Chateau Laurier," says Mack. "We may not be here in a dog's age again, so we may as weel hae the best that's going. No 'farmer's hotel' for mine this trip," says he. "Whatever ye say," I replied, and in we went juist as though we owned at least a fifty-five per cent. share o' the whole outfit.

When we got intae the dining-room who should we see at one o' the tables but oor auld friend Lockie Wilson. He wis with a couple o' ither chaps and we didna disturb him, but Mack says to me, "we've got intae a 'farmer's hotel' after all. If there isn't Lockie Wilson that used to be on the job wi' the rest o' us 'hayseds' doon in auld Glengarry. He's helpin' the Government oot, juist noo, wi' their 'Fall Fair' an' their 'pure seed grain' business, but he's an auld farmer, juist the same. We'll hae to gang further than the Chateau Laurier next time," concluded Mack, "gin we want to associate wi' the aristocracy."

After we had finished oor supper—and paid for it—we went oot tae the front room an' sat doon for a spell. "It must tak' somethin' to rin a ranch like this, Mack," says I, lookin' around. "Not ony mair than they're able to collect from the travellin' public, I guess," replied Mack. "It's a mair respectable way, though, o' takin' a mon's money from him than to break intae his room and tak' it oot o' his clothes, for all that it amounts to the same thing in the end."

That night Mack made me go wi' him to the theatre, although the last thing Jean tauld me before I left that that bein' Wednesday night. The show wis naething great. Only some lassies that seemed to be tryin' to play an auld trick o' my ain that I had when I wis young, which wis to kick doon the stovepipe. This

mixed up wi' a little o' the "movies" wis about the amount o' it all, an' Mack wis wishin' we had kenned enough to hae gone back to the stock show for the evening and seen the saddle horses at their racin' an' jumpin' an' so on. But as I tauld him, ye can't see everything there is to be seen in one night, even in Ottawa.

Nature's Diary.

A. B. KLUGH, M. A.

The largest animal which is common in any part of Canada to-day is the Moose. An ordinary bull Moose stands 6 feet high at the withers, and weighs about 1,000 pounds. A bull shot in Nova Scotia is recorded as being 6 feet 9 inches at the withers; another from New Brunswick as 7 feet, and a third killed at Mattawa, Quebec at 7 feet 4 inches. The greatest weight which has been accurately determined is 1,400 pounds.

The Moose has a very extensive range in Canada, being found from Nova Scotia to the Rockies, and in Alaska right down to the Pacific. In the East it occurs as far north as James Bay, while in the West it is found within the Arctic Circle. The Moose population of a given area is not constant, but exhibits fluctuations, and speaking of these Dr. Bell of the Canadian Geological Survey says: "The Moose migrates slowly from one large area to another through periods extending over many years. For example, in the Gaspé Peninsula the last interval between its leaving and again returning to the same district was upward of half a century, and in the region between the Upper Great Lakes and James Bay the period between its withdrawal and reappearance has been still longer."

The English common name for this animal is borrowed from the Ojibwa, its name in that language being pronounced "Mooswa" or "Mongswa". The French name is "l'Orignal" or "l'Orignac", and is derived from the fact that the early French colonists found the Deer, Wapiti, Bear, and Wolf very much like the European animals the Fall Deer, the Stag, the Bear and the Wolf, but the Moose was something entirely new—therefore "the Orignal."

We often think of large wild animals such as the Moose as ranging at large over the country, but such is far from the truth. None of the wild animals roam at random, but all have a more or less limited area which is known as their home-range. Some animals have two of these—a summer range and a winter range, and we then speak of the animal as being migratory. The Moose is, in this sense, non-migratory, and the usual home-range of a Moose appears to be from three to thirty square miles in extent. During the breeding season the bull Moose often travels considerable distances. In the winter the Moose is satisfied with so small a range that it is called the winter yard. This area is often about fifty acres, and a family of four Moose which were under observation spent the winter within a radius of three hundred feet. Speaking of the winter range of the Moose Seton, says: "The yarding of the Moose is a familiar phrase that has given rise to several misconceptions. Many persons think that a Moose yard is a large place, having all the snow in it trampled down smooth, and surrounded by a straight wall of untrodden snow rising to the level of the deep soft covering of the forest beyond. They imagine, further, that, as soon as a storm starts the Moose gets to work, hoof and horn, to hammer the new snow down level and hard within the yard."

"The fact is that, when the snow commences to deepen, a Moose family—father, mother and little ones—seek out some place of abundant food, and, by winding daily in this, cover the ground with a network of paths. The longer they stay, the more numerous and wider the pathways become, so that, finally, there are but few untrodden spaces of twenty yards across."

"The deeper the snow in the woods the harder the Moose must work for their food, since the lower bushes and ground herbs are not now available, and thus the difference between the snow in the yard and that in the woods increases. If the food is sufficiently abundant, and no hunters approach, the Moose stay till spring. If the food gives out, they must begin a perilous journey through the snow in search of another good place. It is only during such a journey that they fear the wolves. They make it in single file, so that the young ones in the rear do not have a very hard time, and it is usually done with judgement founded on their memory of the country."

The antlers of the adult Moose are remarkable among those of North American quadrupeds for their palmation, that is, for the flattened shape of the main body of the antler. They vary a great deal in different individuals, and after the third year they are no certain indications of the age of the animal. The young bull grows his first pair, two snags a few inches long, in his second summer, shedding them the following spring. Next year he grows his prongs, shedding them late the following winter. The third pair have the beginning of palmation and are dropped in January or February. The fullest development of the antlers is usually reached about the seventh or eighth year, then follows three or four years of but little change, followed in later years by a decline. In very old bulls the points are often reduced to mere scallops on the palmated portion.

One of the prominent peculiarities of the bull Moose is the bell on the throat. This is a pendulant structure of skin and hairs, sometimes cylindrical, sometimes flat, occasionally forked. Ordinarily the bell is from eight to ten inches in length, though it sometimes reaches a length of fourteen inches. No function has ever been definitely proven for this peculiar appendage.

(To be continued.)

THE HORSE.

The Horse Outlook in Britain.

EDITOR "THE FARMER'S ADVOCATE":

A Vancouver correspondent has written to ask me if there is any possibility of business in draft horses being done between Canada and England, i. e., is it possible for a successful trading venture to be started between the new country and the old in heavy horses for street and farm?

No, there is no room for such business in England. Neither pedigree nor grade draft horses from other countries are wanted in England. The Old Country has got enough pedigree stock of her own, and now the war is over she will have her own on her hands—hundreds of thousands of army horses of all degrees of weight, but chiefly medium to heavy draft.

Incidentally our Vancouver correspondent asks what are the ruling prices for draft horses in England. Well, pedigree mares suitable for farm work and for breeding first-rate young stock are worth £250 to £300, be they Clydesdales, Shires or Suffolks. Their colts are making £70 to £150, and, of course, if they be "stormers," i. e., especially good kinds, they are fetching 300 and 400 guineas in the sale-rings. Weedy colt foals bred on pedigree lines are worth £50 anywhere. Fillies just pedigree make £30 to £40; outstanding fillies fetch £80 to £100, and so on.

Two-year-old colts and fillies, pedigreed, are worth £150 to £200; three-year-olds, pedigreed, £200 to £300; useful working, well-bred stock of those ages can be placed at £90 to £130 and £130 to £150 apiece. Farm workers (mares) make £130 to £170, and geldings are being retailed at £140 to £160.

Just now there are starting all over England sales of heavy draft geldings and mares, chiefly grade Shire, Clydesdale, Suffolk and Percheron from out of our army remount depots. These have sold at £70 upwards. They will do very well for town work and for small farmers. But as I have said, there has to come back from the continent countless thousands of army horses. The first-class mares are being earmarked by the Government, and they will get into right hands. We shall have a surfeit of heavy horses in Britain, and we shall have no place for any export trade from Canada, however good the stock may be. Our own home breeds are riding the crest waves of success.

The Shire Horse Society has kind of lost its head because of the success of the breed. It has declined to do any publicity work because it is so successful, i. e., because the demand for good stock is in excess of the supply. The Clydesdale Horse Society has, however, decided to denote some money to a publicity stunt. You see the Clydesdale breeder doesn't suffer from swollen head. Of all the heavy breeds in Britain, most progress in 1918 was made by the Suffolk, but its council also begrudges spending anything on publicity.

ALBION.

How Shall We Mate Our Draft Mares?

Present conditions indicate that the breeding of draft horses will be a profitable undertaking for the breeder, and as the breeding season is approaching prospective breeders will necessarily soon have to decide how they will mate their heavy mares, hence a discussion of the subject may be considered timely.

Of course, those who have registered mares of any of the draft breeds will simply require to consider the individuality of the sires, while those whose mares are not pure-bred may be undecided as to the breed, as well as the individuality of the sires to be chosen.

In this respect there is danger of very expensive mistakes being made when the subject is not well considered. One of the strongest principles of most, if not all successful breeders, has always been "stick to type."

The breeder who, either from disappointments in former efforts, desire to experiment or other causes, decides to patronize a sire of a breed other than that which predominates in his mare, will, with few exceptions, be doomed to disappointment. Experiment in breeding animals are very expensive, and should be practiced only by those of independent means, and who are breeding as a pastime rather than with a view of financial success. If the prospective dam has one or more crosses of any recognized breed, a first-class sire of that breed should be selected, and in such cases reasonable probability of the produce being a better individual than the dam exists. But where a sire of another breed is selected there will, in all probability, be a deterioration rather than an improvement in quality; we might say a mongrelization. If the dam have one or more crosses of Percheron blood, a sire of that breed should be chosen; if of Clydesdale or Shire choose a sire of either of these breeds; if of Suffolk choose a Suffolk sire, etc., etc.

Allow us to briefly review the history or ancestry of a very large percentage of the heavy mares in Ontario, other than the imported ones.

About 40 years ago there were few heavy mares of any definite type, and about that time heavy stallions of different breeds were imported into the province. These animals represented the Clydesdale, Shire, Suffolk and Percheron. For some reason Clydesdales and Shires, especially the former, gradually gained in favor; Suffolks and Percherons, while liberally patronized by the farmers for some years, gradually grew in disfavor, importations practically ceased, those in the country died or were castrated, and we may say that

for 18 to 20 years these breeds were practically unrepresented in the stud.

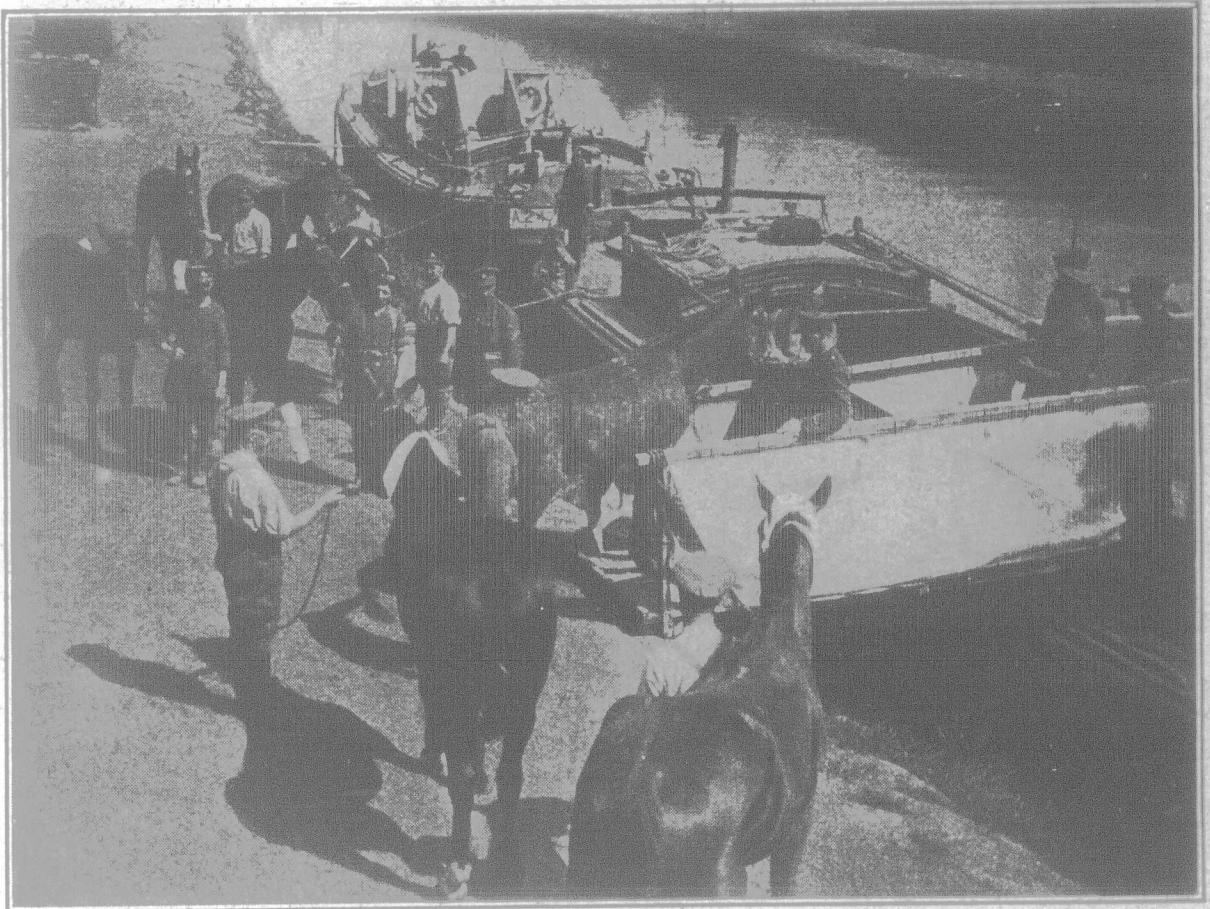
During these years, and right along since then, there have been a great many Clydesdales and some Shire stallions, and of late years no inconsiderable number of mares imported. Breeders of heavy horses have of necessity patronized these sires, and now, in most sections of the province, a large percentage of the mares capable of producing draft colts have a greater or lesser infusion of the blood of these breeds. During the last decade or longer the importation of the Percheron was revived, until the war practically put a stop to it. Hence, in some sections there are now a considerable number of draft mares of this type and characteristics. The intelligent breeder who gives the subject the consideration it merits, must arrive at the conclusion that in order to be successful in breeding operations he must continue to intensify in the offspring the type and characteristics that predominate in the dam, and that an attempt in any other direction must of necessity mongrelize the offspring and bring disappointment. It would require many generations of careful breeding to "breed out" of the progeny of these mares the characteristics they now possess, and it has yet to be shown that the crossing of heavy horses of different breeds and types will make an improvement in type and characteristics. In fact, it has been proved by actual experience, that when such crosses are made, (while the result in some cases is satisfactorily) if be a mare she is, in most cases, very unsatisfactory for breeding purposes, and if a male no experienced breeder would consider keeping him for a sire. In other words, "the first cross may be satisfactory, but succeeding crosses are decidedly the reverse, the progeny being inferior to their parents on either side.

We have no fault to find with any of the draft breeds

the Canadian Sheep Breeders' Association hold their annual meetings on Tuesday, February 4. On Wednesday, February 5, the Canadian Jersey Cattle Club, Ontario Cattle Breeders, Ontario Sheep Breeders, and Canadian Hackney Horse Society meet. The following day the Clydesdale Horse Association, Canadian Hereford Association, and Ontario Horse Breeders hold their annual meetings, while on Friday, February 7, the Eastern Canada Live Stock Union will hold its meeting. Practically all of these meetings will be held at the Carls-Rite Hotel, Toronto.

The Hog Market.

A slight depression in the hog market, and the report that there is a supply of bacon and other hog products overseas to do for several months, has caused considerable uneasiness among farmers. What the outcome will be we cannot say, and up to time of writing those in authority seem to be very reticent about making a statement either one way or the other. Everything has been going smoothly and the market has maintained a high level since the armistice was signed. Reports indicated that there was a great shortage of live stock throughout the whole of Europe, and many prophesied that for some time to come there would be a big demand for meat products of all kinds. This demand would naturally keep the market at a high level. It seems strange that the market and storage space should become glutted all at once. Until a little over a fortnight ago there was no inkling that the conditions of supply and demand were different to what they had been for the past month. The second week in January the hog market was about as strong as it had been for the past year. We realize that these are abnormal times. The cessation of war upset the calculations of those re-



Hospital Barges for Transporting Wounded War Horses in France to a Veterinary Hospital.

of horses, as either breeds or individuals. There are excellent animals of all breeds, but we object to the mixing of breeds when it can be avoided.

If draft horse breeders will keep on breeding their mares to stallions of their own breed for a few generations of horses, they will have practically pure-bred mares of their own production, and the size, type and characteristics of their horses must of necessity be improved, while, on the other hand, if they change to another breed, they will just as surely deteriorate and they will have a class of animal with no definite character or type. Hence we repeat, "Stick to Type."

WHIP.

LIVE STOCK.

Live Stock Breeders' Meetings.

During the week commencing Monday, February 3, there will be held the various breed association annual meetings. These meetings are of particular interest to the breeder of pure-bred stock. They are also of importance to the stockman who keeps grades, and it is to the interest of all to attend the annual meeting of the breed association in which they are interested. Questions of importance come up for discussion, and it is well to be present and hear the views expressed even if no part is taken in the discussion. On Monday, the 3rd, the Canadian Swine Breeders' Association will hold their annual meeting. There will also be a number of directors meetings on the same day. The Ontario Swine Breeders, Dominion Shorthorn Breeders, Canadian Trotting Association, Canadian Standardbred Horse Society, and

responsible for rationing the army and devastated Europe, as every stockman knows. A frank statement from the authorities regarding overseas supplies of meat products would have been accepted with a good deal more grace by stockmen than the sudden drop in the price of hogs, and the statement in the daily press that there were sufficient hog products overseas to last four or five months. This came as a thunderbolt out of an apparently blue sky. The producer is entirely in the dark. Reports of a scarcity of breeding stock overseas, a surplus of pork products, and of starving people do not coincide. Authentic information from those in authority regarding these things is essential. The producer should be informed as to the exact state of affairs. If the market for meat products is likely to go down he should know about it.

Whether the market is high or low, stock raising must be continued on the Canadian farm if the fertility of the soil is to be maintained. Ontario is essentially a stock raising country, and the Western Provinces are fast becoming such. There are other countries where grain can be grown more economically, and placed on the market at a lower figure, than can Canadian grain. We are favorably situated for the production of live stock, but it is necessary that adequate markets be found and maintained. The prosperity of the country depends a good deal on the extent of the herds and flocks kept. During the readjustment period there is likely to be some disturbance of the hog markets. Farmers are as ready as any class to meet the conditions squarely and fairly but they do not want to be kept in the dark regarding things that are closely linked up with agriculture. A sudden decline on the hog market of two or three cents per pound has occurred in normal times

when there was no apparent excuse for it. There may be a good reason for the present state of the market. Hogs have helped pay the mortgage of many farms and they will aid in paying it off many more farms. A depressed market may only be temporary. When credits are arranged satisfactory for those countries which have suffered most there will no doubt be an outlet for our meat products.

Our Scottish Letter.

The year is dying—one of the most marvellous years in human history. On the eleventh day of November the last shot was fired in the greatest war which ever desolated the earth. Thrones and dynasties in Europe have been toppling and bowled over like nine pins; only in Great Britain, Italy and Belgium, of the nations more immediately involved in the conflict, can it be said that the war has left the thrones more firmly established than they were when war was declared by Germany on the civilized world in the end of July, 1914. While joy reigns throughout the earth and, in a marked degree, in Great Britain, it is a chastened joy. Many homes are desolate, and Peace cannot restore what War has swept away. And yet it has not all been loss. Yesterday, for the first time in history, a President of the United States of America, landed on British soil and was given something more spontaneous than a regal welcome. Our King and Queen went to meet President Woodrow Wilson and Mrs. Wilson in person. The last male survivor of Queen Victoria's large family, H. R. H., the Duke of Connaught, ex-Governor-General of Canada, went to Dover to meet the distinguished visitors on their first official landing on British soil. The Duke is the great grandson of King George III, the fatuous policy of whose ministers made the existence of the great western Republic possible. More than that, the late Duchess of Connaught was the daughter of the famous Russian general, the "Red Prince," who, with him who was then the Crown Prince, but afterwards the Emperor Frederick, conducted to a victorious issue the Franco-Russian War of 1870-71. Nevertheless, of all Queen Victoria's family the Connaughts after the reigning house are the most intensely British. So much so are they that the Duke, for himself and his son Prince Arthur of Connaught, refused the Saxe-Coburg crown, which passed to the son of the Duke of Albany, Queen Victoria's youngest son. The young Duke of Saxe-Coburg was little heard of during the war, although doubtless he would be fighting somewhere against the Allies. At the conclusion of the armistice he very promptly abdicated, and where he may be now has not been publicly intimated. During the war his mother, the Duchess of Albany, a German Princess of Waldeck-Pyrmont, has been one of the most zealous and devoted British war workers. She finds her home in the south of England, where she is greatly esteemed. Her sister is the Queen Dowager of the Netherlands, the mother of the present Queen of the Netherlands. The Connaughts need no introduction to Canadian readers, and Princess Patricia and her brother, Prince Arthur of Connaught, are as popular in the homeland as they were in Canada. Prince Arthur of Connaught does a deal of ceremonial duty at home and especially abroad as deputy for his cousin King George V. One difference between the United Kingdom and the United States is that we have a hereditary head of a union of republics which is world-wide, while our cousins under the Stars and Stripes have an elective head. The latter, while he holds office, is vested with far greater power than vests in our King. He is the head not only of the State but also of one political party in the State; our King knows no party politics, hence the stability of his throne, and the immense moral influence which the Royal House of Windsor wields throughout the British Empire. There is greater individual liberty under the Union Jack than under the Stars and Stripes, just because there is a deeper and more universal regard for the supremacy of the law. But enough of all this. My readers will think that I have forgotten that my beat is agriculture, not State politics. The unprecedented events of the week must be my apology. We Scots are naturally proud of

President Woodrow Wilson, whose middle name indicates his unquestioned Scot's descent.

Record Year for Live Stock.

The year has been of extraordinary values for all classes of British stock. The record is held by the Herefords, of which race a bull was sold for £9,450. The whitefaces of the West of England are amazing grazing cattle. They are much more highly appreciated in the Middle and Western States of America than in the home of their origin. In the United Kingdom outside of the county which gives the breed its name, and the neighboring counties, the breed is scarcely known. The Hereford is an unmistakably pure-bred, and the persistence of the red color with white heads and "socks" stamps the purity. They are grand "rustlers," and can find for themselves in any kind of weather. In the eighteenth century and the early part of the nineteenth the Hereford ox was coveted as much for his draught merits as for his beef-producing qualities. I should judge the breed to be peculiarly healthy. One of the best herds in the country is that of His Majesty the King, kept at the Royal Farms, Windsor. The late Lord Rhondda had a splendid herd at Llanwrin in Monmouth, and the Earl of Coventry has long been a spirited supporter of the breed at Croome Court, near Worcester. Shorthorns made no record price, although the £4,410 paid for a bull calf at Mr. Duthie's sale is the record for an animal of that age. The Shorthorn record is still held by the Dunmore sale of 1877, at which a Duke of Connaught bull was sold for £4,725. The bull was bought for Lord Fitzhardinge, Berkeley Castle, Gloucester, by his bailiff, Mr. Peter, and that gentleman has informed me that he was one of the best investments he ever made for the Berkeley Castle herd. This supports the view that it is impossible to tell when a first-class sire of any breed has gone beyond his value. Taking account of numbers there can be no doubt that the Shorthorn in 1918 will have made by far the highest average of any breed in this country. Aberdeen-Angus cattle have made a record. The top price was £1,470, paid by Mr. Charles Penny, Skillymarno, Buchan, for a Harviestoun bull calf at the Perth sale in spring. The Harviestoun herd of Mr. J. Ernest Kerf finds its home near to Dollar, in the centre of Scotland. Mr. Kerr is one of our chief stockmen. He manages his own farms and herds and studs, and has a more cosmopolitan collection of live stock than any other man in Scotland. He has herds of Aberdeen-Angus and Shorthorn cattle, studs of Clydesdales, Hackneys, and Hackney Ponies; and flocks of Border Leicesters and Oxford Downs. In the Clydesdale world he has bred at least four Cawdor cup winners—Scotland Yet, and his own sister Harviestoun Phyllis, Nerissa, and Harviestoun Baroness, and he has won the cup for mares oftener than any other single exhibitor. One of the grandest mares which ever won the cup, Chester Princess, was bought by him at the Blacon Point dispersion, before she had been shown, and she became dam of both Scotland Yet and Harviestoun Phyllis. It has sometimes been said that no one has ever made a success of both Aberdeen-Angus and Shorthorn cattle in the same herd and at the same time. Mr. Kerr bids fair to belie this theory. During 1918 he topped the records of the Aberdeen-Angus breed, and at the Bull sales his was among the higher averages for Shorthorn calves. With so many choice mares his great problem is to find a sire with which to mate them, which is not too closely related to the best of his own. During 1917 and 1918 the leading sires have easily been Dunure Footprint and Bonnie Buchlyvie. Both are got by Baron of Buchlyvie, the £9,500 horse, whose sire was Baron's Pride. The bulk of the Harviestoun mares are of Baron's Pride descent. In a number of cases Mr. Kerr has been very successful in mating Baron's Pride mares with Royal Favorite 10630. He is a valuable outcross, but is getting to be well advanced in years.

Reverting to the subject of the value of sires, a striking illustration was seen during the autumn Ram Sales. In autumn 1917 J. M. L. Marshall, of Bleaton, Blangowrie, paid £300 for the shearing Blackface ram Commissioner, bred by A. P. McDougall, High Craigton, Milngavie. This year at the Perth sale Mr. Marshall sold a bunch of Blackface ram lambs

got by Commissioner at prices the total of which more than equalled the £300 paid a year earlier for their sire. These were only a fraction of the lambs after Commissioner in his first season. The ram is again in use this season, and should his career be of normal length it is obvious that he must prove a very profitable investment. Mr. McDougall himself this year paid £395 for a Blackface shearing ram—the record price for an animal of that breed, and the highest price ever realized in Scotland for a ram of any breed.

Clydesdale breeders have had a successful season. The highest prices have been £820 for a yearling filly, and £300 for a three-year-old gelding. The breed society is in a flourishing condition, and now numbers fully 3,400 members. The forty-first volume of the Stud Book is now in course of being printed. The society is governed by a council of 36 members and a president. The members are elected on a very democratic basis. The United Kingdom is divided into twelve districts. A meeting of the members resident in these districts is held every year at a convenient centre, within the district, and at each meeting a member of council is nominated, who holds office for three years. Should more than one nomination be made a vote is taken by voting papers issued to each of the members resident within the area. Thus Inverness is the centre for the northern area extending from Banff to Orkney, but the meeting is not always held in Inverness. In view of the wide area and to insure that every area has fair representation, the meeting for the northern area is held alternately in Elgin, Inverness and Dingwall. Similarly in the centre of Scotland, called the Stirling and Fife District, the meeting is held alternately in Stirling, Milnathort, and Cupar-Fife. In the west of Scotland the area embraces the counties of Dumbarton, Renfrew, Bute and Argyll. The meeting there is held alternately in Glasgow, Paisley and Campbeltown. Areas have to be readjusted from time to time. It is inevitable that the strength of the membership will vary as the years go round. At present the council is considering area adjustment consequent on the steady growth of membership during the past twelve years in the north of England and Ireland. Clydesdale breeding is rapidly extending in these areas, and adjustment of boundaries is necessary so as to ensure, as nearly as may be, a representative council. There are indications that shows are to be resumed during 1919. The Royal is to be held at Cardiff, and the Highland at Edinburgh. The Royal has been in abeyance since 1916, and the Highland since 1914. There is also some talk of holding the Glasgow Summer Show, the Scottish National Fat Stock Show, and the Smithfield Club Show. It might, perhaps, be as well to ca' canny. We are not yet "out of the wood," and food is still scarce for both man and beast. Labor also holds the field as a stubborn problem. Trusting all my readers may find 1919 a prosperous year.

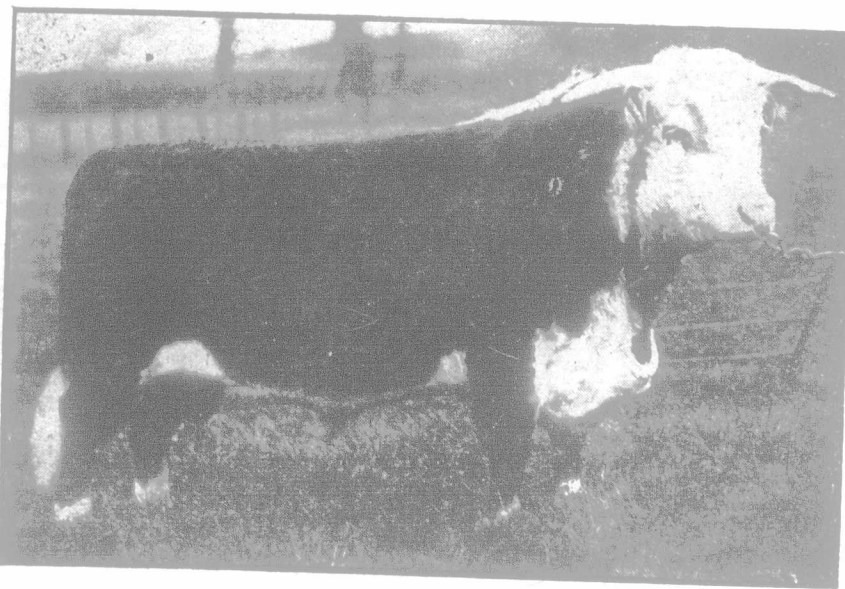
SCOTLAND YET.

Live Stock Council Not Representative.

EDITOR "THE FARMER'S ADVOCATE":

I have followed with a good deal of interest your very able editorials on the Canadian Live Stock Situation, and I think the majority of Canadian stockmen will feel in perfect agreement with what you have written. There are points, however, on which I think you might have gone even farther, and prompted by the extremely concise and clean cut review of the situation as presented by Prof. Barton in your issue of January 16. I am tempted to offer some suggestions whereby the live stock industry of Canada might find avenue through which it could speak with a voice that would be thoroughly representative of the industry and with a strength commensurate with its importance.

Regarding our present Live Stock Council, Prof. Barton touches the crux of the situation when he says "It is not representative, and the Government knows it." It is a cardinal principle of democracy that no authority can speak for the people, that is not elected by the people, and it is sound logic that no council can speak authoritatively for the live stock industry that is not directly elected and financed by the industry.



Paymaster.

Hereford stock bull in the Royal Herds at Windsor, Eng.



Windsor Norseman.

The Shorthorn stock bull in the Royal Herds at Windsor, Eng.

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As the financing of the council is proposed to be maintained by a tax levied on the revenue of the different breed associations, would it not logically follow that the council should be composed of a body of men elected by the contributing breed associations? That each association should have a representative, or that the representation should be in accordance with the importance of the breed is a detail that could be worked out. Personally I believe the former would give the most general representation, and with a council of this nature any man who would place his special breed before the general welfare of the whole, would receive rather scant support from his fellow councillors. For a start the council might be formed of the respective breed association presidents, or failing this of delegates duly elected at the annual general meeting.

The argument may be put forth that such a council would only represent the registered stock end of the industry; and which numerically is not a big percentage of the whole. Still I think the industry would be in safe hands, as it is an undisputable fact that the success of the pure-bred stock industry is absolutely dependent on the welfare of the live stock industry as a whole. Such a body would not be open to the criticism put forth by Prof. Barton at any rate, and as every member would only be there subject to the endorsement of his association, we venture to prophesy that unless results were forthcoming (which I feel sure would) the council would soon pass out of existence.

This, of course as pointed out by Prof. Barton, and also by your editorial does not give us, what we will call for want of a better term a supreme council of agriculture, that could with perfect confidence in its strength approach the Government on any point necessary.

If we have, however, a Canadian council of agriculture, a live stock council, a national dairy council, and we may safely hope a national fruit growers' council, would it not only be one step more for each of these bodies to appoint say two delegates each that would form a small committee that could authoritatively put forth the claims of Canada's greatest industry—Agriculture in all its branches.

Huntingdon Co., Quebec. GILBERT McMILLAN.

The Hampshire Down Sheep.

The Hampshire Down breed of sheep was originated in the southern part of England, in the County of Hampshire. The present breed traces back to a type that while large was slow maturing, narrow-backed, fine fleeced and that had horns. These were mated with some of the more improved breeds of that day, with the result that the body and fleece showed a marked improvement. Southdown blood was used considerably to add refinement to this original large, slow-maturing type. A good deal of culling and selection was necessary in the development of the breed as we know it to-day. About the middle of the nineteenth century the Hampshire Down was imported to America, but it was late in that century before the breed occupied a prominent place on this side of the water.

To-day the Hampshire Down is one of the largest of our medium-wooled breeds of sheep. The Oxfords are possibly a little the larger of the two. Mature rams will weigh around 250 pounds, and ewes about 200 pounds. As a mutton sheep the breed ranks high and is popular on the British market as well as on the American market. For the production of early lambs the breed has special merit. The lambs maturing early and fattening easily is also a factor in their favor. In England, Cotswolds and Hampshires are frequently crossed in the commercial flock. This cross gives a sheep that kills out a large percentage of meat and also gives an excellent fleece. The Hampshire-Lincoln cross, as well as the Hampshire-Merino cross, meets with favor for the production of fat lambs or wethers. The fleece is of medium length but has scarcely the quality of the Southdown. Seven to nine pounds of unwashed wool is a fair shearing per head. The breed does fairly well on pasture when run in large flocks. The fecundity and maternal character of the Hampshire ewes compares favorably with other breeds.

The breed is widely distributed, being found in practically every country where sheep are kept. The breed is well suited to rolling land where pasture is good. There are a few flocks in Ontario, representatives of which meet in competition at our larger fairs. The following is the standard of excellency as issued by the Canadian Sheep Breeders' Association: "Head—Face and ears of a rich dark brown, approaching to black, well covered with wool over the poll and forehead. Intelligent, bright, full eye. Ears well set on, fairly long and slightly curved. In rams, a bold, masculine head is an essential feature. Neck and Shoulders—Neck of strong muscular growth, not too long, and well placed on gradually sloping and closely fitting shoulders. Carcass—Deep and symmetrical, with the ribs well sprung, broad straight back, flat loins, full dock, wide rump, deep and heavily developed legs of mutton and breast. Legs and Feet—Strongly jointed and powerful legs of the same color as face, set well apart, the hocks and knees not bending towards each other. Feet sound and short in the hoof. Wool—White, of moderate length, close and fine texture, extending over the forehead and belly, the scrotum of rams being well covered. Skin—Pink and flexible. Objections—Snigs. White specks on face, ears and legs. Thick, coarse ears. Black wool. Coarse wool on breeches. Protruding under jaw. Excessive loose skin under neck."

The Canadian National Live Stock Council Explained.

EDITOR "THE FARMER'S ADVOCATE":

I have read with a great amount of interest a letter written by Prof. H. Barton and published in your issue of January 16, dealing with the unsatisfactory condition of the live-stock industry, and the apparent failure of some of the live-stock organizations to successfully cope with it. I know Prof. Barton to be a very able and eminently fair man, a gentleman of more than ordinary ability. I agree with many of the statements in his letter, but I wish to reply to some of the attacks directed against the newly organized Canadian National Live Stock Council. I agree with Prof. Barton that up to now apparently very little has been done by the live-stock interests to take advantage of the tremendous opportunity afforded by the cessation of the war. But, is it the fault of the Live Stock Council? The Council as you know, was organized late last spring, in fact is



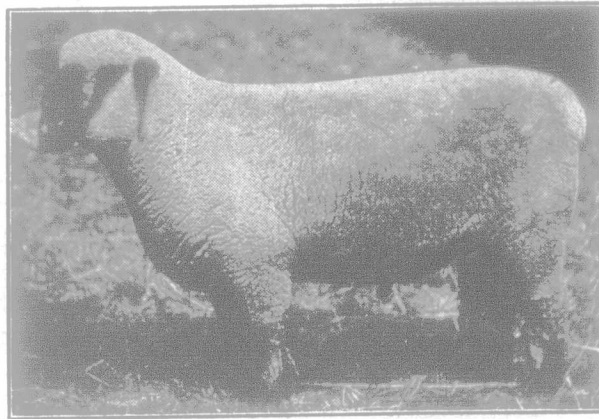
Prizewinning Pen of Shropshire Lambs for J. Lloyd-Jones, Burford, Ont.

See sale advertisement, page 194, this issue.

not wholly organized yet. We have no status, no funds, no permanent officers; in fact, we are in the same position as the Canadian Council of Agriculture were when they were just organized. It is, indeed, unfortunate that the Live Stock Council had not been organized a few years ago, so that when this present opportunity arose they would have been in some position to meet it.

Prof. Barton makes the statement that various requests have been made to the Government, and various resolutions of live-stock organizations presented, and adds that, with few exceptions, they did not come through the Live Stock Council. Why did they not? The Live Stock Council was organized for just such a purpose. If instead of howling against the Council all the live-stock interests of Canada would help the Council, would work with it, and through it, and if individuals instead of finding fault would only offer their advice, help and co-operation, it seems to me that the Live Stock Council would fulfil its purpose. They would be able to convince the Government that they had the live-stock interests of the country behind them.

Why did not the Canadian Council of Agriculture come to the Canadian Live Stock Council and ask



Hampshire Down Ram.

them to recommend a representative live-stock man to go to Europe with the nominee of the grain men? The Council of Agriculture, being fully organized, and a body of some years' standing, working with the live-stock men, would perhaps have resulted in success. A paragraph in Prof. Barton's letter reads as follows: "Until the live-stock men of this country are identified as a unit, and speak through one central voice, the Government of this country will do as it thinks best for the live stock, but it will be made to do things for other interests that can speak." This statement takes care of the whole question. That is the very reason why the Live Stock Council was formed. Now let us all get behind it. Let us give it our support, and perhaps in the near future we will be in a position to not only demand our rights, but to compel any Government to grant them.

I hold no brief from the Live Stock Council, but I do know that the men who form the Council have done their very best to accomplish something worth while for the live-stock industry, and permit me to say, that in my opinion after working under all the handicaps of an imperfect and partly organized association, their

efforts have met with some measure of success. If the Council is not representative let the live-stock interests at their coming meetings see to it that it is made strongly representative.

Kent Co., Ont.

J. D. BRIEN.

THE FARM.

Progressive Thinking in the West.

EDITOR "THE FARMER'S ADVOCATE":

Eastern farmers who watch with interest the trend of affairs in the West, will learn with satisfaction of the multiplying signs in the younger country that old-time partizan politics will get decent burial at a tearless funeral when the next general election comes round.

A well-posted friend with whom I occasionally enjoy a discussion of public affairs, drew my attention a few days ago to a cablegram from John W. Dafeo from London to the Manitoba Free Press, dealing with the result of the general election in Great Britain, which resulted in such a triumph for the coalition ministry. Mr. Dafeo who is one of the leading publicists of the west, characterizes it as "a tidal wave of public opinion against all attempts to re-establish the pre-war political conditions and party divisions."

The indications are that a similar fate awaits politicians who may similarly attempt to "re-establish the pre-war political conditions and party divisions" in Western Canada—also in the East if we may judge from distant rumblings.

Further down in his article Mr. Dafeo speaks of the defeat of Mr. Asquith and some other front-bench Liberals, which he says is generally regretted. And then he adds this significant remark: "Their defeat is not due to dissatisfaction with their war records so much as to the feeling that they sought to re-establish the old status of the parties and thus retard the political evolution of the country in harmony with the new issues and new conditions."

In other words, the influence of the war has greatly modified the views of men concerning social and economic problems, and has by no means left political affairs untouched. In this country, also, widespread feeling of dissatisfaction which existed before the war toward successive federal governments; the feeling that an intolerable similarity has existed far too long between the "ins" and the "outs" with regard to graft, conception, dollar-rule and the abuse of special privilege towards so-called "infant" industries, long since grown up, has been accentuated by the baring realities of the war. There is not only a call for the early adjustment of governmental machinery and of the laws themselves to new industrial and social requirements and conditions, but there is evident a determination that these things shall be accomplished; if not in one way then in another; if not by one kind of government then by another kind.

It has sunk deeply into the consciousness of the West that something is rotten in the State of Denmark. This young country is blessed in its leadership by strong, virile clear-thinking men whose eyes have been thrilled with the great vision of a new Canada, where justice and equality shall reign. Ontario too, I well know from long residence there, is similarly blessed to a marked degree, particularly in its rural leadership. But the Ontario daily press being more largely controlled by other interests, and subservient to them, does not give the same unbiased expression to progressive thought and movements that we find in the West. The "cub" reporter is still good enough for farmers' gatherings, and the professional headline-writer, well paid to furnish sensational touches suited to the tastes of urban readers, gets a more certain hearing than the less ostentatious, though sometimes more fair and thoughtful editorial. Consequently the real conditions of the farmer's business are too often misrepresented. By long-continued feeding on this sort of fare the impression has become fixed in the minds of city readers that every advance in food prices represents profiteering and that farmers are profiteers. A more unjust and erroneous conception, of course, could not be sent abroad to create a wrong attitude towards an honorable class of hard-working people. It is a pitiable but undeniable condition.

Among the most far-seeing and outspoken publicists of the West is the Rev. S. G. Bland, D. D. In a recent article in a Winnipeg paper headed "1919" he writes thus:

"Never was there a year that promised to be so fateful. The great storm is over, but the sea still heaves with the mighty ground-swell and all the shores are white with the thundering surf. And already the heavens grow black with the portents of another storm. Already governments are in the throes of internal conflicts. Before 1919 has passed no one can tell in what other lands long peaceful the revolutionary fervent may be working. We in Canada will certainly not escape great changes. We ought not. In no other English-speaking land are the workers so exploited by the schemers. In no other alleged democracy is government so completely in the hands of a few powerful interests. The most imperative duty of Canadians, now that the German wild beast has been caged, is to free their own country from the money-power, a power in its rapacity and ruthlessness akin to the spirit of Germany."

"This is the immediate and the supreme task of all good people in Canada—to rescue the national government from the control of men bent on the perpetuation of their own enrichment and to make it a government of the people, by the people, and for the people. This thing will be done in our constitutional, orderly, Anglo-Saxon way. It does not need to be done in any other. The common people are supreme. They have only to assert their authority. But done it must be and quickly. To this conversion of Canada from a nominal to a real democracy it is altogether probable that the coming year will make a large contribution. The greatest and most fruitful of Canadian struggles will have begun.

"The people vs. 'the big interests'—that is the issue. By that men will be judged. By that the churches will stand or fall. This is the cleavage which will make the old parties meaningless, which will create new ones, and let a fresh bracing wind into the devitalized atmosphere of our Canadian political life."

Rev. Blands' article is so timely and seems to voice so well the sentiments of the farming community of Canada, both east and west, that I cannot refrain from quoting further, first because I know it will be appreciated by readers of "The Farmer's Advocate", and secondly because it is the right kind of thinking for all progressive Canadians to get in line with. He goes on to say:

"This struggle is not a class struggle, the outgrowth of mere envy and bitterness. It is not on behalf of the poor against the rich. It is on behalf of the rich men more deeply even than on behalf of the poor. Great wealth, especially where it is ill-gotten, makes men uneasy and suspicious. It isolates and withers the human heart. The richer the lonelier. Men who have by piratical methods acquired great wealth will enjoy life more and have far more satisfactory relations to God and to their fellow-men when they are getting something nearer their just share. Inequality is always a poisonous thing. It works more ill to the higher than to the lower. Servility is not so evil a thing as pride. No man can be happy or healthy who is not humble and brotherly, and it is very hard for the rich to be either.

"And so, bearing in mind that the struggle is not to wrest happiness from the rich and to give it to the poor, but to find a better way of life for both, let all soldiers of the social revolution strive to keep their hearts clean from bitterness. They have no right to regard all the beneficiaries of the present unjust system as unjust. Knowingly men who may seem little better than beasts of prey are in a great measure victims themselves of an unnatural social order. Let us try to avoid all unnecessary antagonisms. Let us be willing as long as we can to work with any and every one. Let us keep company with the man whose ways we think most mistaken and evil as long as our differing ideas will permit us. Let us recognize that there may be a sincere devotion to the common good along with methods and principles that may seem to us most incompatible with the common good. Let us, as far as we can, distinguish between principles and persons. Principles may be as far apart as heaven and hell. Human beings never are."

In a future article I will endeavor to convey some other aspects of the progressive spirit which is gripping the West and rapidly winning converts.

Saskatchewan.

W. L. MARTIN.

Winter Jobs and Farm Bookkeeping

EDITOR "THE FARMER'S ADVOCATE":

Some of these early winter evenings, after you get the chores done for the night and you are comfortably settled get out a pencil and paper and make a list of the jobs wanting done during the winter. You will be surprised at the number of little jobs and repairs needing attention. Start with the house and think of what little repairs are needed, or little jobs needing attention. Then you can start on the barn, anything around the stables needing fixing or attention. Go over the machinery and list all repairs needed, order new parts and fix broken pieces. Estimate the quantity of grain needed for seed and list it as a job needing attention.

I venture to say you will be surprised at the number of jobs needing attention. Don't stop making the list, start right in and fix up the things needing attention.

Very few farmers keep books in the strict and true sense of the term. Many keep some sort of account of their receipts and expenditures. This is all right as far as it goes, but it does not go far enough. Your bank book will show you whether you finish the year with a profit or a loss, but this is not enough.

The farmer, to be up-to-date and to run his farm on a business basis, must keep books in the fullest sense. He must keep account not only of his cash, but of his work, both by men or horses, or even the tractor. The farmer's time is surely worth something, but we find the average farmer figuring his profit without any regard to the value of his own work.

Probably a few examples will better illustrate what is meant. Take milk for instance. Just now the consumer is accusing the producer of unduly raising the price. Is the average farmer able to back up his demand for an increase in price with figures showing the actual cost of producing milk on his own farm.

The milk shipper needs to keep books. He should value his cows, buildings and equipment, his time in caring for the cows and handling the milk, the cost of feed, both concentrates and roughage. The feeds bought are easily accounted for, likewise the grain grown on the farm. The silage and roots can be

estimated, but the farmer should be able to tell what it costs him to fill his silo with corn. Rent of land, value of manure, work on land, cultivating the corn and time and labor in filling silo should all be kept strict account of. In this way you can arrive at the actual cost of the corn and its value in the ration. These and other points should be considered in estimating the cost of producing milk. The same system should be applied to each and every branch of farm work.

The grain fields should be carefully watched. Keep account of the work you put on the land, and in sowing and harvesting the crop and cost of threshing. This will give you the cost per acre, and with the yield figured at market price you can tell the profit per acre. If the grain is fed the cows, they should be charged with it at market price. The same with the poultry or pigs. It does not require any elaborate system to keep farm accounts. A small note book with each day's work and transactions jotted down is very handy. Then from this you can figure out costs to be added to each separate account. If you think you cannot keep every department of farm work on the books, start the new year with part of your operations running on a business basis and see if at the end of the year you do not vote the plan a success.

York Co.

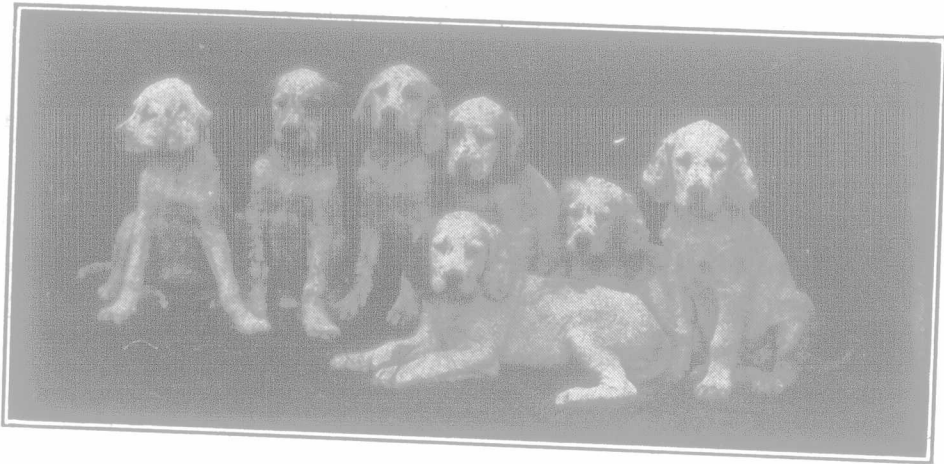
C. H. R.

Bank Interest.

EDITOR "THE FARMER'S ADVOCATE":

Every person who has a bank account should take the trouble to make sure that the bank clerks make no mistakes. The public seems to think that bankers never make mistakes, but it is proved by experience that they do. The banks have taken on a lot of new help this year and have had a lot of extra work to do in connection with the Victory Loan. Hence it is not surprising that mistakes are made occasionally.

The depositor should get a blank cheque book from his bank. The amount of the cheque, the date, the name of the person to whom the cheque was given and what it was given for, should all be recorded on the stubs. By this means the depositor will always know how much money he has in the bank. Every time he takes his pass book to the bank he should see that the deposits have been correctly added and the amount of



"We Are Seven."

A Group of Setter Puppies.

the cheques correctly subtracted. The depositor should reckon the interest, too, which is really not very difficult to do.

Banks calculate the interest on deposits every month, but they only add it to the principal, twice a year. The rate is usually 3% per annum. The interest for any month is calculated on the minimum monthly balance, which is the smallest sum of money the depositor had in the bank during that month.

RULE.—To find the interest on a bank account for one month at three per cent, divide the number of dollars in the minimum monthly balance by 4; this will give the interest in cents.

EXAMPLE.—A man who had a bank account of \$40 on Jan. 1, 1918, deposited \$200 on Jan. 10, withdrew \$80 on March 25, and deposited \$360 on April 5. If the interest is compounded twice a year; Dec. 31 and June 30, find the amount of the account on June 30. Solution:

Month	Minimum Monthly Balance	Interest
January.....	\$ 40	\$0.10
February.....	240	.60
March.....	160	.40
April.....	160	.40
May.....	520	1.30
June.....	520	1.30
Interest to June 30th.....		\$4.10

The amount of the account on June 30th was \$520, with interest added equals \$524.10.

If no withdrawals were made in July the minimum monthly balance for that month would be \$524.10 and the interest \$1.31. On Dec. 31st, the interest for the 2nd half year is added to the principal in the same way as above.

Ontario Co., Ont.

NELSON McDOWELL.

Give the League of Nations a Trial.

EDITOR "THE FARMER'S ADVOCATE":

After the awful "Hell on earth" of the last four years and more, is it to be marvelled at that so many interested people are looking forward with prayerful hope to a League of Nations, and arbitration as a means for putting an end to war and its horrors for all time to come? Yet many are giving expression to their lack of faith in the project. But why not give it a fair trial? Every civilized nation is governed by its laws, which laws are for the advancement of good and the restraint of evil. Why not a League of Nations whose laws will be for the same purpose?

A contributor to "The Farmer's Advocate" in a recent article suggests missionary teachers of unselfishness and the golden rule as a better means for bringing about a permanent peace.

But why not have a League of Nations at the same time, if it can be established? And why can it not, with the aid of the world's Creator? The scriptures tell us that the powers that be are ordained of God and that we should be subject to the powers that be.

Your contributor referred to above, concludes his article in these words. "If we've seen the last of war it is because the heart of the world has been changed and not because our law-makers in Europe are drafting a new set of rules to keep out of mischief." And who will not agree with him there, and also with Kipling when he prays,

"Oh Lord of Hosts be with us yet,
Lest we forget; Lest we forget?"

Wellington Co., Ont.

FARMER.

The Front at Home.

EDITOR "THE FARMER'S ADVOCATE":

The Front means only one thing to-day, and for us all, it stands for more than the actual battle-line, the two commonplace words have become hallowed by the memory of the men who have fought and fallen there—at the Front. In England we have almost forgotten that the words have another meaning; the sea-front of the coast towns, sea and sand and broad parade and a long line of hotels and lodging-houses, that is our front in peace time, our front at home.

White cliffs encircle the bay, and the town stands on the inmost shore, looking out to the cold grey sea.

It used to be a great yachting centre four years ago, but now there is not a white sail left on the bay. Instead there are cargo boats and merchantmen still in their freakish war paint. The harbor is a scene of motley colors; a boat painted in huge designs of black and green and white and scarlet has just come in from the Channel Islands with a cargo of fruit and vegetables, and is being unloaded by English soldiers in khaki. Another boat is taking on board some frightened, half-broken young horses, and grey; while the next vessel, from mast to Plimsoll-line, is covered with monstrous zig-zags of bright blue and green and black. All the ships that come into the bay are painted in much the same fashion, except some craft belonging to the Navy.

Further down the harbor there are two little motor launches of sober gun-boat grey getting under way with a great whirr of engines and wail of hooters. They finally sweep out to sea in a cloud of white steam and a flutter of brilliantly colored signalling flags, leaving a wake behind that sets all the other boats rocking.

The notices, "Beware of Spies", and detailed warnings against giving information to inquisitive strangers, have not been taken down from the walls or posts round the harbor. These notices and the secrecy which still surrounds all ships' movements have quite done away with the talk and the gossip of the harbor.

The high old houses along the sea-front have changed. The great hotel, the principal building on the front, is a hospital now. On the steps and on the balconies are men in the bright blue uniforms of the wounded, through the open windows float the sound of men's voices and the cheerful strains of a gramophone. Other houses along the front are turned into the offices and depots of various forms of war work and war charities.

Only a few weeks ago four German soldiers were working down in the area of an official looking house with wire blinds at the windows. They were sawing up wreckage into firewood with sullen slowness, while their guard looked dispassionately on. Three of the prisoners kept their eyes fixed on their work, so that the people who hung over the area railings to watch had only a view of their bowed heads. But the fourth prisoner took frequent shifty glances at the English faces above him; he was a young man with a pale, flat face and long curly auburn whiskers; he was wearing a faded scarlet jacket belonging to the pre-War British Army.

There are tin boxes with big slots in their lids hanging on the railings, with the words "Nutsells to save

Nations a Trial.

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FARMER.

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soldiers' Lives" and "Fruit stones for gas masks" painted on them. They hang upside down now, as a hint that no more gas-masks will be wanted. Outside one house is a barrel with a notice tied round it. "Please give a walking stick for the use of the wounded." It has not been there many days, but already it is half full; there are sticks of all kinds, from an ebony stick with a silver and ivory handle down to a stout ash plant cut from a hedge in the country.

By the turning down to the station half a dozen Red Cross ambulance cars are drawn up. They are filled with slightly wounded soldiers, who are being regaled during the halt with bread and butter and cups of hot tea handed up by hospital orderlies. There is a great deal of chaff and repartee called from one motor to another.

At night time for more than four years there has been absolute darkness along the front, not a chink of light from door or window, not a match struck outside, not a glimmer of light anywhere, except the alternate brightening or fading of a lighthouse lamp on some dangerous rocks many miles away. Lights may be shown along the front now, but street lamps are not lit and hardly any blinds are left undrawn.

Submarines have never come into the bay, but ghastly wreckage of their warfare has been washed in. Wreckage of all kinds; wood and cork and rope, nuts, onions, matches, lard, small pieces of coal and charred remnants of men's clothing—all the flotsam and jetsam of sunken cargo boats. Most of the stuff washed ashore was salvaged by the coastguards, the rest was eagerly sought for by the townspeople. Many of the things washed up were quite rotten and useless, but some things were quite unspoiled—nuts, of which bushels have lain on the beach for any one to claim, and coal, and wreckage that could be dried and used for firewood. Once, in the night, a ship's boat drifted in with the dead body of an unknown sailor.

It is probable that German U-boats will never trouble the seas again, but those who live on the front will never, never forget them. They are the people who have seen from their windows ships sinking helplessly in a calm sea only a few miles from the land; and they have seen the crews, wounded, and dying, and dead, landed from torpedoed ships.

England.

FRANCES SARGEANT.

Lambton County Notes.

EDITOR "THE FARMER'S ADVOCATE":

The year 1918 has come and gone, and on the whole this has been a prosperous year for the tillers of the soil. Everything except wheat and hay was above the average. Some complain about the shortage of the potato crop, which was caused by heavy rains after planting time causing the seed to rot. Early frosts caused some of the late varieties of corn to come short of maturing. However, we expect to have seed enough to go around this coming spring (thanks to the Corn Growers' Association.)

We had a very favorable fall for getting fall work done, such as plowing, underdraining, etc. The advanced price of tile will keep back draining until prices become normal again. Fall wheat never looked better—plenty of top and all covering the ground. There will be fewer cattle fed this winter for spring and early summer shipping on account of grain and hay being high; also, with the prospects of a downward market ahead, some farmers shipped their cattle last fall.

The annual meeting of the Lambton County Co-operative Association was held on January 3, when Mr. Anson Groh, the Manager, had a good report to hand out. If the business increases in the next ten years as it has done in the past two, it will be a flourishing association. Some of the all-wise people of Sarnia have realized that if they want a market they had better let the supply and demand set the price. A local paper in its lamenting would try to make believe it was the friend of the farmer, but, as a matter of fact, there is not one paper between Toronto and Sarnia, except the good old "Farmer's Advocate", that comes out for the best interests of agriculture. I have been a subscriber to "The Farmer's Advocate" for thirty years and in conclusion I want to congratulate you on your editorial in a recent issue, re Fair Price Boards.

Lambton Co., Ontario.

C. M. F.

AUTOMOBILES, FARM MOTORS AND FARM MACHINERY.

The Tractor Saves Horses.

EDITOR "THE FARMER'S ADVOCATE":

We got an 8-16 tractor last spring to help out with the work. It has a speed of 1 3/4 miles per hour in low and 3 miles in high. It will pull three furrows through medium soil or in stubble ground and two where the ploughing is hard. I can plough six acres a day with three furrows or four through hard ground with two furrows. We also have a 16-16 tandem disc and can disc two acres an hour.

It takes about ten gallons of coal oil and a quart of gasoline for a day's run. We had seven horses and did away with two. It was easier to get a lot more work accomplished this summer and it didn't take half as much grain for the horse feed.

The tractor weighs forty-nine hundred pounds but it did not sink into the ploughed ground much more than a horse. Coal oil is somewhat harder to run on than gasoline. You have to start on gas and as soon as it

starts to warm up turn it over on to the coal oil. It generally will miss a few explosions on the start until the coal oil starts to get heated as it comes to the carburetor. It takes much easier if pulling a load. It is better to set the carburetor about half a turn richer when starting. As soon as the first sign of pre-ignition or knocking starts it is time to turn on the water that mixes with the fuel. Turn it on until the engine starts to miss then shut it back a little so that every explosion hits. Don't be afraid of the water so long as the engine runs smooth as it cools much better inside than from the radiator.

There is very little trouble with carbon if plenty of water is used. Our engine had one cylinder that run all summer without being taken off and it held good compression. The other lost its compression along about the middle of the summer but all that was wrong was there had not been enough cylinder oil used on the valve stems which let them stick a little and the explosion rushing by the valve seat pitted it a little. It did not bother any more after this. We took them both off this fall and it was surprising the very little carbon that had collected.

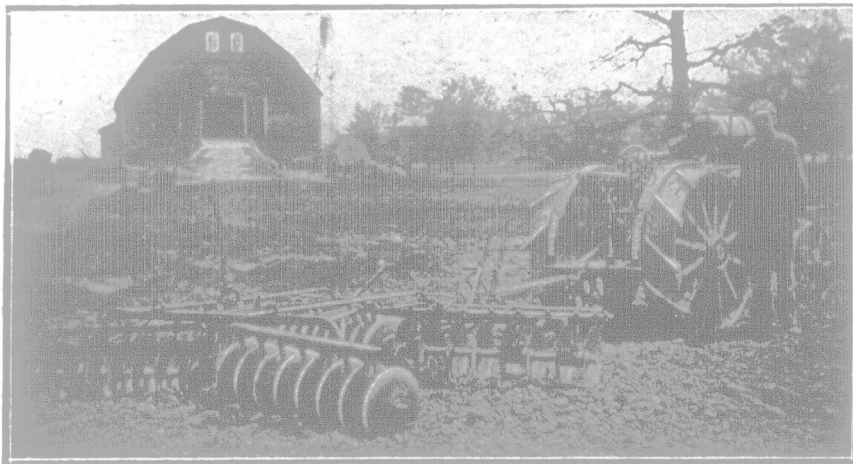
Be careful about setting your carburetor as a little makes a lot of difference. Only move it a very little at a time until there is very little or no smoke. However, it will take much quicker when starting if the needle valve is opened half a turn richer.

Elgin Co., Ont.

J. I. BRADT.

Electricity and Convenience in the Farm Home.

From the time man commenced building cities and towns he has labored unceasingly to provide every convenience in the homes of the city dwellers. Municipal light and water systems have been evolved, and sewage disposal systems have been perfected. Where humans are congregated it is essential that such conveniences should be available. Having water on tap and light by the pressing of a button has helped make life pleasant for the city folk, but has tended to make rural dwellers dissatisfied and sometimes envious. Many country boys and girls, contrasting such conveniences with the home conditions where water had to be carried from two to twenty rods in all kinds of weather,



The Tractor Speeds Up Cultivation.

and where considerable work and what evening reading or amusement was engaged in had to be done by the glimmer of a kerosene lamp, which sometimes smoked and never lighted the remote corners of the room, decided on leaving the old home and taking up their abode where things were more congenial. Lack of the above mentioned conveniences have been directly responsible for considerable of the migration from farm to city resulting in rural depopulation.

Apparently city conveniences on the farm were thought an utter impossibility until within the last decade or two; in fact, it is only within the past four or five years that the feasibility of such things was deemed practical. True, on a few farms a sewage system is installed and a bathroom equipped; water is piped to the house and pumped by windmill, or gasoline engine, and natural gas heats and lights some homes. A few situated in the vicinity of a hydro line installed electric light in the house and barns and are using electric current for doing numerous tasks about the place. However, as yet hydro serves comparatively few farms. How about the homes situated miles from town, or sideroads and concessions? Are they so remote from the centres of population, with their bright lights and running water in the houses, as to be forever barred from enjoying that great boon to civilization—electricity in the home?

The old order of things passeth. As the kerosene lamp superseded the tallow candle, so the electric light in the farm homes will displace the smoky, smelly, oily lamp. Engineers and scientists have at last turned their attention to rural problems and have evolved labor-saving devices and conveniences that will relieve much of the drudgery of house work and make the farm home a most desirable place in which to live. Many things that the city dweller thought were for him alone are now available on the farm. Labor-saving devices both in the barn and house greatly aid in removing the backache and weariness from those on whom rests the great responsibility of feeding the world.

Individual electric plants, which are practically "fool proof", are now on the market, and during the

past three years have been installed in thousands of Canadian homes. These plants are compact and are built as simple as possible, so that there is the maximum of efficiency with the minimum of parts to get out of place or give trouble. With some outfits the engine and generator are built in one piece, while with other makes the generator is separate and is run with a detached gasoline or kerosene engine. The current is stored in batteries which give off the current as it is wanted for light or power. Coming from a storage battery the light is steady, soft, yet bright and easy on the eyes. The current can be carried to every room in the house through wires concealed in the partitions, and at the pressing of a button a flood of light appears illuminating the farthest corner of the room. Many users of the farm electric plant claim that the light surpasses their fondest expectation. Not only does it brighten the home beyond that possible with lamps, but it is much safer and cleaner.

If electric lights in the house are appreciated by the women folk, lights in the stable are equally appreciated by the men. How much easier it is to do the chores under a good light than poking around with a lantern, the glass of which is very often black. The open lantern has been responsible for many fires, but the electric bulb banishes the dread of fire from explosion or over-turning of the lantern. As one man said "I have had my barns burned twice from accidents with lanterns, and I never left home without a dread of fire. This is banished now that electricity lights stables and barns merely by pressing a button or turning a switch."

These small electric plants which furnish light are also capable of supplying power for running a multitude of machines developed to lighten the labor about house and barn. There are wonderful possibilities for electricity on the farm, and it is gratifying to know that no longer need the farmer wait for a power line to run past his place in order that he may secure current. At comparatively small cost a plant can be installed on the farm.

An idea of the uses made of current developed by these small plants may be gained by what the writer has seen in his travels. On many farms the cream separator is run by a small motor which can be carried about with ease. Instead of spending from fifteen to twenty minutes night and morning turning the separator

by hand, the motor was connected up when the milking was nearly finished and consequently there was a great saving of time. The motor also turns the separator at a more even speed than is accomplished by hand, thus giving more uniform test of cream. On a few farms electricity drives the milking machine. The motor which drives the cream separator is easily carried to the granary and run off the granary light socket. Here again the electric current saves the work of a man, and has resulted in the grain for seed being more thoroughly cleaned than was usually the case where man power was used. The small boy who was called upon at the most inopportune times to turn the grinding stone for sharpening axe or scythe has lost his job since father installed the

electric plant. The little quarter or half horse motor merrily hums away as it drives the stone to suit the one using it. The boy has no regrets. It was a distasteful task. On one farm the motor was used to drive a small cutting box and the root pulper. The beauty of this power is that it can be carried to wherever needed as it can be driven from any of the light sockets.

At the house the same motor comes in very useful. It takes much of the unpleasantness and heavy work out of the housewife's hands on wash day. The electric motor willingly helps the farmer's wife on wash day. When the clothes are put in the washer, a switch is turned and the machine does the work, while the farmer's wife is free to go about her regular duties. The same current will turn the wringer and is under instant control of the operator. Those churning their cream have but to hitch the motor to the churn and the current will do the rest. This saves hours of a person's time every month. How often has the country woman envied her city sister her electric washer, iron, percolator, vacuum sweeper, etc. No longer need she do so. The little farm power plant, which a couple of men could lift, will generate the "juice" that will permit of the electric appliances common in the city home being used in the farm home. Why shouldn't it be so?

Failure to have satisfactory water pressure to provide running water in the house is preventing many from putting in this great convenience, together with the bath-room equipment. An automatic electric pump and pressure tank operated by the farm power plant is now available. As water is used the pump starts automatically, thus keeping a supply on hand without the necessity of a large elevated supply tank. Running water in the house and barn saves many steps and permits of the installing of a serviceable sewage disposal system.

Electricity is one of the most valuable forces possessed by mankind and why shouldn't it be available in the rural as well as the city home? Electric light, running water, and sewage disposal are looked upon as essential in the city and are found in the majority of homes. These things are equally essential in the farm home.

Good light has an uplifting and cheering effect on the home, and will do as much or more than any other one thing to prevent the trek of the young folk to town.

The farm power plants are usually of the thirty-two volt unit type and require a battery of sixteen cells. This voltage requires a little heavier wiring than is ordinarily used in the city where one hundred and ten volt units are used. However, the lighter voltage gives a light that in some regards excels the ordinary higher voltage. Small power plants housed in six-by-six buildings are becoming quite common through the country. The simplicity of the outfit and its efficiency commend it to the rural districts.

The cost of installing the above mentioned conveniences is considerable, but once one has become accustomed to them the general verdict is "I would not be without them even if the cost were greater." The first cost is practically the only cost. If good work in plumbing has been done, the water system will give service for years without any expense. Septic tanks for sewage disposal have been in use for twelve or fifteen years without a cent of expense and are apparently as serviceable to-day as they were when put in. With the lighting plant there is a moderate operating expense. Kerosene or gasoline fuel and lubricating oil are necessary for the running of the engine. Outside of this, expense is almost nil. Plants have been giving constant service for upwards of two years without a single repair being necessary. Thus, while scientists and engineers gave the urban dwellers every possible convenience that tended to save labor and make housework and home life congenial decades ago, they have at last realized that the need for such is equally great in the rural districts, and their ingenuity has made it possible for the farmer and his family to have as up-to-date and handy a home as the professional man in town. Thousands of farmers are now enjoying the things which at one time, not so many years past, were thought to be for the city man alone. Electricity on the farm has been the greatest boon of all. It has unlimited possibilities and will relieve some of the drudgery and make life more worth living for many a rural dweller. Let there be light in the farm buildings as there now is in the city.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

Public Speaking and Debating.

BY G. H. UNWIN, O. A. C., GUELPH.

Part IV. Memorizing and Delivery.

Some teachers of public speaking insist on their pupils memorizing their speeches. This may be advisable for the first attempts, when the pupil is nervous or excited, but for practical purposes the sooner he learns to think "on his feet" the better. It requires considerable dramatic ability to deliver a memorized speech with conviction. The thoughts have been staled by repetition, they no longer come "hot from the anvil." To imperfect memorizing may be attributed many common faults of delivery: the absent manner, the eye fixed on vacancy, the hesitation and repetition of phrases, all the tricks which recall the "closing exercises" of our school days.

For the same reason the wise course is to rely as little as possible on written notes. The speaker who brings to the platform a sheaf of papers, covered with minute writing, is at a double disadvantage. In the first place he is continually consulting these notes, so that the people in the benches, for the greater part of the time, are gazing at the top of his bowed head. In the second place he usually gets the papers disarranged and has to sort them out. Meanwhile the audience—figuratively—bites its nails with impatience. The ideal way is to speak from headings. A stiff card on which are written the main headings and the most important sub-divisions, is the most convenient form of notes. The closing sentences of a speech should receive special attention. Who has not heard speakers make a firm conclusion and then spoil everything by beginning again? I should like to protest strongly against the common habit of ending with the words "Thank you". If the speaker thanks his audience it must be for their patience or indulgence, or for refraining from throwing things at him. Such humility is excessive. The young speaker should carefully prepare his closing sentences, so that the last impression of him which the audience retains may be favorable. In debates it is a good plan to end with a brief summary of the points made.

In the matter of preparation, then, the following steps are suggested: 1, Outline the speech; 2, Expand this outline as described; 3, Write out the speech in full, and read it over, to get the sequence of ideas; 4, Put away the written copy and speak from the headings; 5, Make the ending clear-cut and definite.

Delivery.

While a man, by taking thought, can improve his delivery immensely, yet it is not recommended that he spend much time on minute points connected with gestures, attitude, etc. There are certain "Hand-books of Oratory," which tell you in detail how to express the different emotions, at what moments to raise the arm and clench the fist, when to spread the hands in an appealing gesture, how to work the facial muscles, and so on. These may be useful to the professional elocutionist. They are worse than useless to the average man. If any catched the patience—and the time—to train his speech on such models he might succeed in turning himself into a human semaphore, but as a speaker he

would probably be a failure. By over-training one loses personality; and in a speaker it is personality that counts.

Yet there are certain general principles which are often neglected by inexperienced speakers. The faults which one observes in a beginner seem to spring from a misconception, or rather from a lack of perception on his part. I mean that he often does not realize the fundamental though obvious fact that instead of speaking to one person, who is close to him, he is addressing perhaps a hundred, most of whom are some distance away. If he did realize this he would unconsciously make provision for it by throwing his voice to the back of the hall, instead of addressing his boots. Similarly if he considered that the mere act of following a speaker's thought entails an effort, he would not distract the attention of the audience by doing a double-shuffle with his feet, scratching the palm of his hand on the corner of the table or making any of the uncouth movements which have their birth in nervousness or an absent mind.

Below are given categorically some of the commonest faults in delivery. These are repeated with every new class of students and may be considered typical defects. In most cases they will suggest their own remedy.

Indistinct Utterance.

This may come from pitching the voice too low, from holding the head down, from speaking too rapidly. In nine cases out of ten, however, it comes from imperfect articulation. The average Anglo-Saxon suffers from a partial paralysis of the lips and jaw when speaking. To prove this one has only to compare the different articulations of a Frenchman and an English-speaking person. The Frenchman makes great play with his lips and jaw, and consequently the vowel sounds are tense and bright, the important consonants are sounded with decision, and the syllables receive a more uniform value. With many English-speaking people, however, the mouth seems to open grudgingly, to emit a series of neutral grunts or barks. This rigid position of the facial muscles is the source of two important defects in a speaker: in the first place it converts his face into a kind of stoic mask—the sense of his words is not as-

1918 as compared with 1917. The actual number in Canada in November, 1918, was 3,542,429, an increase of 340,146 since 1917.

The yellow color of milk is due to carotin, which comes from the plants used by the cows for food. It has no feeding value and gives no taste to the milk or fat. This is the reason butter often appears white in winter.

Experiments conducted at the Dominion Experimental Farm at Ste. Anne de la Pocatiere, Quebec, show that the cost of raising a heifer up to the time she dropped her first calf amounted to \$97.17 when the average actual prices paid for feed in 1917 were considered.

The report of the Dominion Animal Husbandman for the year ending March 31, 1918, show that 188 head of dairy cattle of all breeds and ages are kept at the Central Experimental Farm, Ottawa, an increase of 34 since March 31, 1917. There are four pure-bred and two grade herds as follows: French-Canadian (27 head); Holstein (43); Jersey (27); Ayrshire (57); Grade Ayrshire (15); Grade Holstein (19).

Winter Feeding of Dairy Cows.

Cows are fed in the stable during one-half of the year or more, and feeding during this period may, through ignorance or on account of using unsuitable feeds, be made very expensive. The profits from the herd will, of course, depend to a large extent on the economy of the methods of winter feeding followed. Economical feeding does not mean scant supplies, but the using of the kinds of feeds and feed combinations that will be likely to produce the best results at the lower cost. As the milk produced depends upon the quantity and quality of the feed consumed, every effort should be made to supply the cow with all she will eat of a ration combining palatability, easy digestibility, variety and nutrition.

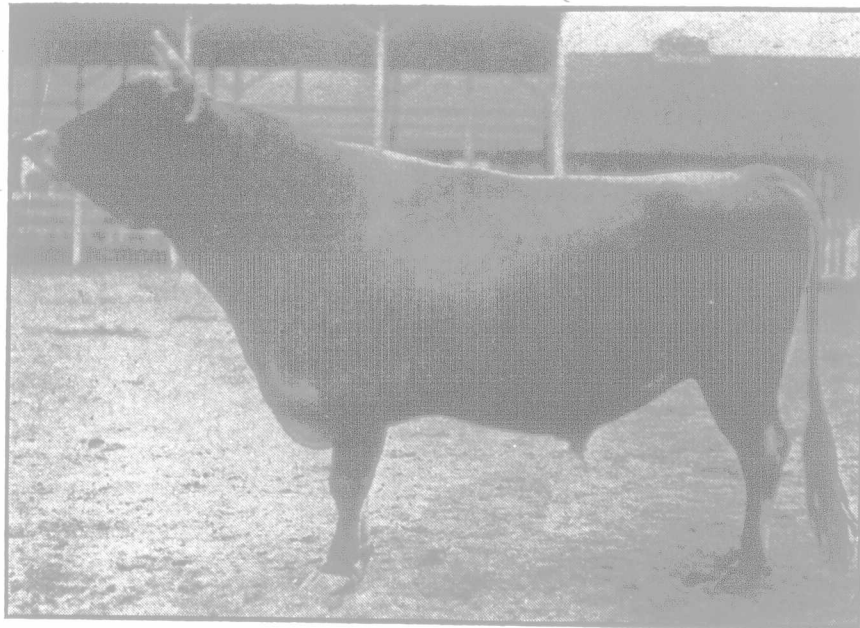
The most economical ration must have as a basis cheap but rich, nutritious, farm-grown roughages such as clover hay, silage and roots. The liberal feeding of meals is advisable to balance the roughage ration and to provide the heavy milking cow with an extra supply of nutrients in a less bulky form.

A pound of grain when the cow is fresh is equivalent to several pounds of grain after the cow has decreased materially in her milk flow. Feed one pound of meal for every 3½ pounds of milk produced; as her lactation period progresses, decrease the meal gradually to one pound for every five pounds of milk produced.

The following are two well-balanced daily rations for the 1,000-pound dairy cow suitable to the individual needs of farmers throughout the district: No. 1.—Mixed hay 16 pounds, turnips or mangels 40 pounds, meal mixture composed of bran 6 parts, ground barley 2 parts, oil cake 1 part, and cotton seed meal 1 part. This meal fed at the rate of 1 pound per 3½ pounds of milk produced. No. 2.—Mixed clover hay 12 pounds, corn silage 30 pounds, meal mixture composed of bran 5 parts, cotton seed 2 parts, oil cake 1 part, fed at the rate of 1 pound for every 3 or 3½ pounds of milk produced.

All cows are not of the same temperament. On this account a study should be made of the requirements of the individual animal. In the best-bred herds, cows vary in their productive ability, therefore, to obtain the greatest profit, records should be kept of both milk and feed, and tests made occasionally to ascertain if it would pay to increase or decrease the grain. Cows, in order to make a maximum production at a minimum cost, should be housed under the most favorable conditions, that is, in regard to cleanliness, good ventilation, plenty of light, with necessary bedding and occasional grooming. A cow should have all the good quality roughage she wants, with a well-balanced grain ration regulated by her production, also plenty of fresh water and from one to three ounces of salt added to her feed daily.—Experimental Farms Note.

The proteins and fats of cheese are more than 95 per cent. digestible and fully equal to milk in this respect. The very thoroughness of its digestion is the reason also why it cannot be eaten without more bulky foods. One pound of cheese will, in fact, give as much nourishment as two pounds of meat. In the United States people use about 175 lbs. meat per year as compared with 4 pounds of cheese. Milk and its products should be much more largely and universally used than at present.



Meadow Grass Raleigh.

First as two-year-old, senior and grand champion Jersey bull at the Canadian National Exhibition, Toronto, 1918. Owned by R. J. Fleming, Pickering, Ont.

sisted as it should be, by facial expression; secondly it causes him to slide over many syllables and to pronounce such words as "particularly," "education," "agriculture", as if they were written "ptickly", "edekasha", "ag-culture". This reminds one of the London preacher who filled his church to overflowing by announcing that he would preach on "The Aspects of Hell." The people came in from the highways and byways to hear a sermon on this promising subject. To their great disappointment, however, the actual subject of the worthy man's discourse was "The Aspects of Health".

If a speaker finds that, in spite of speaking loudly and deliberately, he cannot make himself heard, he ought to study this question of articulation. In fact it is safe to say that every speaker should study it. It is good practice to force oneself to pronounce each syllable distinctly. Clear speaking is not a question of lung power, for often women, with voices of lighter resonance than men, can register each word in the back benches.

THE DAIRY.

Maximum production can only be obtained by a judicious combination of breeding, feeding and handling.

Breed has a marked influence upon the size of the fat globules, but very little upon the protein or sugar content of milk.

It is impossible except in extreme cases, to detect tuberculosis in cattle from external appearances. The tuberculin test should be used for the safety of the rest of the herd.

Milk cows increased 10.6 per cent. in Canada in

Fitting Cows For Calving.

There is a tendency on the part of many dairymen to omit any special fitting of their cows for calving. Apparently it is believed that if a few weeks are allowed the cow when she is not milking, this is all that is necessary to prepare her for another long and arduous milking period. Eckles says that one of the most important factors in obtaining a large production of milk is to have the animal in a good condition when fresh. An increasing number of dairymen are learning through experience that this is so and that they have, generally speaking, not allowed the cow a sufficient opportunity to recuperate from one lactation period before forcing her to enter another. Just a short time ago a dairyman told us in conversation that he believed cows should be allowed to go dry for at least two months, and that a great deal of the trouble from cows going down in milk production so fast was due to this neglect on the part of their owners. "I am confident," said he, "that if we would permit our cows a longer rest period between calvings, they would not have to be sold off so soon and replaced by others at a considerable expense."

All animals that secrete milk for their young normally take on flesh during the gestation period. This reserve is used for milk production when the young are born. Commercial dairymen are based on the maternal instincts of the cow, and we expect her to yield a much greater quantity of milk than will be required by the calf. To this end we feed her so as to increase her milk flow as much as possible and maintain it as long as she yields a profitable flow of milk. Cows lose rapidly in weight after calving if they have any surplus weight to lose, as dairymen well know. At the Minnesota Experiment Station it was found in one case that the average decrease in weight during the first week after calving amounted to 49 pounds with an average daily loss per cow of 2 pounds for the first 7 weeks. In the meantime they were producing much more milk than could have been produced from the food eaten, which goes to show that for a considerable time after calving, good condition at calving results in greater milk production. In

addition, there are at least two other factors that must be considered. In the first place it is known that cows calving in a fat condition will, at the same time that they are losing flesh rapidly after calving, produce milk much richer than usual in butter-fat. A cow fed at the Missouri Experiment Station serves as a good example of this. She was a mature animal and was fed so as to carry an excess amount of fat at calving time. After calving she was fed only enough for a dry cow. At first she gave 21 pounds milk per day, and although she was being fed very poorly she was still giving 19.5 lbs. at the end of 30 days. She had, however, lost 115 lbs. in weight, and it was estimated by Eckles that all of the fat and other solids yielded in her milk during this period, amounting to 43 lbs. fat and 53 lbs. other solids, must have been drawn from her body tissues. Her milk during this period tested 6.1 per cent. fat, but within 48 hours after her feed was increased, the test dropped as much as 1.4 per cent.

In another experiment at Missouri two heifers were raised from birth to calving, one being kept poor and thin and the other fed richly until she calved. After calving the milk of the well-fed heifer tested 4 per cent., while that of the poorly-fed heifer tested only 3 per cent. The fat heifer declined in weight for several weeks, but her fat percentage remained constant, decreasing only when her weight became stationary. In the end her milk was little, if any, richer than that of the poor heifer, whose weight had remained stationary after calving and whose percentage of butter-fat had not altered. These experiments show the tendency of cows possessing dairy temperament to put the fat of their bodies into milk production because of the strong impulse for milk production, providing they are permitted to calve in good condition. The fat put on their bodies is returned in the form of the more valuable butter-fat, instead of being wasted. Those who practice short-time testing realize this and endeavor to have their cows and heifers in good condition at freshening. There is also the fact that cows cannot be expected to produce strong, healthy calves if they are in a thin condition.

The feeding of cows during the dry period is important, and it is essential that cows have at least 6 weeks and preferably two months in which to gain in flesh and rest up. Concerning fitting for the coming lactation period, the Animal Husbandry Department of the Central Experimental Farm, Ottawa, says as follows:

"The feeding of the cow during this period will depend upon her condition when dried off. If she is in good condition of flesh then very little more than a maintenance ration is necessary, but the feeder should watch that she does not lose her thrifty condition. If she has become thin and run down then a liberal ration should be allowed. The character of the ration need not differ materially from that fed to the milch cows. Pasture, supplemented by silage or soiling crops in summer and roots or silage and legume hay in winter should be sufficient for the cow in good condition. Those in poorer condition should receive grain in addition up to six or seven pounds per day if necessary. It is important at all times that dairy cows receive a laxative ration, but particularly so just at calving time. To this end, the grain ration should consist of such laxative feeds as wheat bran and oil cake, together with either ground oats, barley or corn, preferably the former, in equal parts. For every 100 pounds of the above grain mixture there should be added 1 pound each of ground rock phosphate, charcoal and common salt. The salt is a necessity in the ration, while the other ingredients act as a tonic. Cows not receiving the grain should be fed some of this tonic mixture separately, or the last day or two before calving the regular ration should be replaced by bran alone, which should be fed up to calving time and for a few days afterwards.

"To ensure the best results from the above method of fitting the cow for her lactation period she should be allowed plenty of exercise. Running with the milch cows in summer and being turned out in the barnyard for an hour or two daily in winter will meet requirements in this regard. This exercise will be found to do away with many of the calving and udder troubles experienced with cows highly fed on heat-producing foods just previous to calving."

Central Selling for the Cheese Industry.

Under this head we are reproducing practically in full, the address of J. A. Ruddick, Dairy and Cold Storage Commissioner, Department of Agriculture, Ottawa, delivered at the 1919 Convention of the Dairymen's Association of Eastern Ontario, held at Belleville, January 9 and 10. As mentioned in our report of this event Mr. Ruddick's address had to do with such an important phase of dairying, particularly in Eastern Ontario, that such space as we could devote to his address at that time was entirely inadequate.

The matter dealt with has long been an evil needing eradication. Mr. Ruddick has "taken the bull by the horns" and, at a very opportune moment has suggested a remedy. Two years of close connection with centralized marketing in Montreal have served to crystallize the Commissioner's studied opinion and if, in addition we remember that for years previous the cheese marketing system has been open to severe criticism the following paragraphs deserve the most careful consideration:

"It is quite the fashion in these days, now that the war is practically ended, to consider everything in the light of the new circumstances in which the terrible conflict has placed the whole world. We do not, however, need to apply that much overworked term "reconstruction" to the dairying industry. Probably no other industry has been so little disturbed or less interfered with during the past four years than the one which is represented by this association, and in the interest of which we have come together on this occasion. The dairying industry has nothing to fear in the days which we are now facing, days over which there are some misgivings and doubt in more than one line of human effort. The dairying industry will continue to develop and expand as heretofore, without interruption, or disadvantages other than those with which it has always had to contend.

"It is true that the manner in which the exportable surplus of our dairy produce will be handled next season has not yet been determined, and nobody knows if the Dairy Produce Commission will be continued, or if some other plan will be adopted. Everyone is anxious to get back to the accustomed channels of trading as soon as possible, but that may not be as easy as it would appear to be on the surface. It may be necessary, owing to the great scarcity, to continue some measure of control and distribution in the Old Country in order to prevent the supply all going to those whose purses are long enough to take it away from others of limited means. As long as control and rationing continues in the United Kingdom it is quite probable that the authorities there may desire to handle the purchase at this end on lines similar to those followed during the past two seasons. I have no official information on this point, and can only give you my frank opinion on the situation, and of course I may be wrong in my surmises.

"Of one thing you can be assured, and it is this, the British Ministry of Food realizes that in order to encourage the production necessary to restore a reasonable balance of supply and demand, high prices must be maintained. They do not want low prices under the circumstances. Furthermore, the British Ministry of Food has always shown a desire to be fair and reasonable, as for instance when they increased the price of cheese last year from 23 to 25 cents per pound, one might almost say without the increase having been asked for.

"But I must get down to something practical, and in doing so I propose to confine myself chiefly to one point. It is big enough and important enough to claim undivided attention. The suggestion which I have to make involves the whole question of the sale of cheese and butter. The idea is one which I have cherished for some years, but having had some doubts on certain aspects of the scheme I have never pushed it or discussed it at any length. I have, however, mentioned it on more than one occasion as the ideal method which ought to be followed if it were possible to carry it out. The experience of the past two years, during which all butter and cheese exported has been classified into definite grades and paid for strictly on a quality basis, has proved so satisfactory that it has paved the way for carrying out the plan which some of us have long had in mind. The plan in brief is as follows:

"All cheese and butter would be shipped regularly from the factories to a central warehouse at Montreal, where it would be graded by a government grader and then offered for sale by auction to the highest bidder, and according to the real quality of each lot. I do not advance this scheme simply for the sake of proposing something new, but because I believe, after long and careful consideration, that it offers substantial advantages to the individual factory and to the industry at large, without imposing corresponding disadvantages. It would reduce the cost of marketing and add that much to the price of the butter or cheese as the case might be. The individual factory would make a direct saving in not having to employ a salesman. There would be an indirect saving by the elimination of the commission or salary paid to the country buyer, which amount would come back to the factory in the higher price which the exporter could afford to pay. The charge of auctioneering would be a mere trifle, and all other expenses such as freight to Montreal, cartage, cooperage, and warehousing, must be paid in any case.

The industry at large would derive great benefit from the fact that all cheese and butter would be paid for on a strict quality basis. I do not know of anything which would be more effective as a means of improving the quality or of maintaining a high standard in our dairy products. There is, to be sure, some deduction for inferior quality under the present system. I am speaking, of course, of the practice before the Commission came into existence and which will prevail again when we get back to normal conditions. I would remind you also that I am dealing with the whole of eastern Ontario and not any particular section, because I am aware that these remarks to not apply with equal force in all sections. What I wish to emphasize is the fact that any "cuts" in price which are made at present are not made on a uniform basis. The extent of the cut often depends more on circumstances than on actual inferiority, and worst of all, it very frequently happens that there is no deduction at all when the quality is inferior. Much depends on the state of the market. If there has been upward tendency in prices during the interval between purchase and inspection, the actual value of the inferior article may be equal to the price agreed upon. No fault can be found with the trade for following this practice for it is the natural outcome of the system. It is no real gain to the factory if a cut of half a cent a pound is saved under these circumstances. It only engenders a false sense of security which

leads to further trouble. This lack of uniformity in making claims leads to suspicion and lack of confidence, so that when claims are made they are very often not accepted as genuine. This feeling is fostered by the fact that the decision as to quality is wholly in the hands of the buyer. With independent and disinterested grading, the reports would be accepted as correct, and therefore the matter would be enquired into and some effort made to improve the quality without delay. It would be an easy matter to arrange for co-operation between the graders and the provincial instructors to ensure prompt attention where it was most needed.

"Now this suggestion is not altogether new. As I have said, you have heard me mention it in previous addresses given before this association and in articles in farm journals. As a matter of fact, a somewhat similar plan is in successful operation by the Quebec Agricultural Co-operative Society, which Society handled over 100,000 boxes of cheese and a considerable quantity of butter during the past year. It has been in operation for several years and the volume of business transacted has grown rapidly. Under the Quebec scheme the factories must become members of the Co-operative Society.

"There is another matter connected with the sale of cheese and butter which would be affected by the inauguration of a central selling organization, and it is one which I mention with very great reluctance and no little hesitation. I only do so because I feel that some one ought to do so, and that it is in the interest of the trade generally that it should be mentioned. Most of you who have been connected with factories for some time are aware that in the case of very green cheese it is not an uncommon practice to allow one pound or more on the weight of each box. You may or may not be aware that this practice is very often followed in the case of inferior quality. That is to say, if there are a few low grade cheese in a shipment, the matter is adjusted by undermarking the weight instead of accepting a reduced price. This is a bad principle to follow, even if it is done openly and above board, but it is not always so done. It is not infrequently an arrangement between the cheesemaker and the buyer without the knowledge of the salesman, and in such cases the action should be characterized by a rather strong term. This sort of thing arises out of the vicious system of cheesemakers and butter-makers guaranteeing the quality of their product.

"There are salesmen, too, who are in the habit of receiving commissions from the buyers in connection with the sale of cheese, a practice which to say the least of it is not consistent with good service or good business. I repeat that I mention these matters with reluctance and with regret that the facts permit of them being referred to at all, for it may appear like casting slurs on a body of men who in the great majority of cases are honorable and upright in every respect. These things are only possible in connection with factories under loose management, but, unfortunately, the business end of many of the factories does not receive the attention which it deserves, or which is necessary to obtain the best results. These evils which I have mentioned, and they are evils where they exist, should be stamped out, and I do not know of any better way than by adopting the plan of selling by auction at a central point. The cheese and butter boards which have been in existence so long

would, of course, be abolished if a central auction system became general. I do not think there would be any occasion for regret on that head. As they are now conducted, with a few notable exceptions, they are little better than farces, although under the present system of country buying some such institution is necessary.

"One can produce plenty of evidence to show the great improvement in the quality of butter or cheese where grading systems have been introduced. My first experience in this line was in New Zealand 20 years ago. When I went out there as Dairy Commissioner the first thing I had to do was to reorganize the grading system. In that country it is compulsory to have all cheese or butter graded which is intended for export. It is universally admitted that the grading of cheese and butter in New Zealand has been the most important influence in raising its quality to that high standard which gives the country's dairy products such a prominent place in the world's markets at the present time.

"Most of you have heard something about the truly remarkable results which have been obtained in Alberta and the other prairie provinces since they adopted the grading system in connection with the sale of creamery butter. I could also show you that the cheese and butter handled by the Quebec Agricultural Co-operative Society averages much higher in quality than the cheese and butter from other factories in the province which is marketed through other channels, without being graded. I find, from the records of the Cheese Commission of 1917 and the Dairy Produce Commission of 1918, that the percentage of No. 1 cheese received in 1918 from the province of Quebec has increased by nearly 8 per cent, and the chief instructor and inspector, Mr. E. Bourbeau, attributes this increase to the fact that all cheese have been graded during the past two years. There was a higher percentage of No. 1 cheese from all districts in 1918. I shall not weary you by arguing a point which is so clear.

"Of course I anticipate that there will be some opposition to this proposal. The country cheese buyer—and by that title I refer to the man who buys for a Montreal house on salary or commission—could hardly be expected to look upon such a proposition with favor, and possibly some of the exporters located in the country may see reasons to object. One is always sorry to propose anything which may be inimical to the interest of any particular class of the community. In this case the regret is all the deeper because I number among my good friends many men who are country cheese buyers. The interests involved, however, are too large to permit of these personal considerations having any influence in the matter. Every improvement or reform entails a measure of inconvenience or hardship on someone.

"It is quite possible that some of the Montreal exporters may have reasons for opposing the central selling, but I know that some of the leading houses would welcome the inauguration of such a plan. Opposition or no opposition, I feel convinced that this system will eventually prevail. There is so much in its favor and so little that can be put in the balance against it, that it seems to me there can be only one outcome. It will not likely come all at once. I do not think it would be desirable to make the change all at once. A gradual turn over would be more likely to succeed.

"As I see it there are two ways in which this scheme can be carried out. First a co-operative organization among the factories, to provide warehouses and facilities for handling the business at Montreal. The alternative is to have a private firm or company undertake the auction business at a fixed rate. There are likely to be some new warehouses erected in Montreal in the near future and they will afford excellent facilities for handling a business of this kind.

"In conclusion I would say that this appears to be a matter to which the dairymen's association of Eastern Ontario might very properly give some consideration. I would like to see this association, as well as others, take a more active interest in matters of this kind. The dairymen's associations in Ontario were organized in the first place to disseminate information in regard to the manufacture of cheese. This function has been transferred by degrees to the dairy schools and the system of dairy instructors, and the associations it seems to me, should devote their attention to more matters of policy and the larger aspects of the dairy situation. There is need at the present time for an aggressive policy, and the representatives of the dairy industry in eastern Ontario must be up and doing if the important district which they represent is to be kept well to the front.

Bloody Milk.

EDITOR "THE FARMER'S ADVOCATE":

About twelve years ago we had a few heifers that all gave bloody milk. The sire, I think, was at fault, as neighbors' heifers from the same bull also had bad teats, full of lumps, and gave bloody milk. We kept a calf from one heifer which was from a Holstein sire. For the first year she was all right, then she started to give bloody milk, but as she was a good cow we tried to make a cure by giving tincture of iron. After getting two or three lots from the druggist we quit and put a calf at the job. By the time the calf was fat she didn't give any more bloody milk for a few times, then once more she gave bloody milk.

We were talking one day to a friend about this cow giving bloody milk, and he said: "Do you strip her?" He said that would make some cows give bloody milk. I stripped this cow some, but not much, as I had got into the habit from milking a Jersey cow with short teats, and as my hands slipped off I would give

a strip or two with thumb and finger, then take a fresh hold till my hands worked down, and continue that way till I had her milked. I did the same on the other cow, and that's what made her give bloody milk. I quit stripping and she soon quit giving bloody milk and has never given bad milk since. We still have her, and several of her calves, and they are all sound in teats. You now have my experience for the reading, so you might hint it to readers if nothing more.

Haldimand Co., Ont.

A SUBSCRIBER.

Canadian Dairy Statistics.

We give herewith a resume of a preliminary bulletin giving statistics relative to creameries and cheese factories in Canada for the year 1917. This information, like most other information of a statistical nature coming from Ottawa is somewhat late, more than 12 months late in fact, but may still be of interest to many. There is a considerable amount of information which is valu-

Summary of 31,714 Milk Fat Tests for 1917.

Per cent.....	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2
Tests.....	36	122	157	219	317	1,607	2,301	2,724
Per cent.....	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
Tests.....	3,301	4,905	4,638	3,535	3,411	1,011	1,325	1,410
Per cent.....	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8
Tests.....	416	310	196	192	18	22	27	31
Per cent.....	4.9	5.0						
Tests.....	8	12						

able from a standpoint of comparison and in addition, these figures serve to enlighten us as to the magnitude of the dairy industry.

The total number of creameries and cheese factories making returns in Canada in 1917 was 3,418, as compared with 3,446 in 1916 and 3,513 in 1915. Of the total in 1917, 949 are creameries, 1,900 are cheese factories, 549 are combined factories making butter and cheese and 20 are condensed milk factories. The great majority both of creameries and cheese factories are in Quebec and Ontario. In Quebec there are 598 creameries, 895 cheese factories, 482 combined factories and 1 condensed milk factory. In Ontario creameries number 154, cheese factories 923, combined factories 45, and condensed milk factories 13. In both of these provinces the number of cheese factories has increased, and the number of creameries has decreased, as compared with 1916. The total number of patrons (i. e., farmers supplying milk and cream) is 250,505 in 1917 as compared with 221,192 in 1916 and 212,927 in 1915. In 1917, the patrons numbered 81,784 in Quebec and 96,255 in Ontario.

Creamery Butter.

The total production of creamery butter in 1917 was 87,404,366 lbs. value \$34,227,188, as compared with 82,564,130 lbs. value \$26,966,355 in 1916, and 83,991,453 lbs. value \$24,385,052 in 1915. Quebec and Ontario together produce 72 per cent. of the total creamery butter in Canada. The production of Quebec in 1917 was 34,392,560 lbs., value \$13,689,310, as compared with 34,323,275 lbs., value \$11,516,148 in 1916, and 36,621,491 lbs., value \$10,899,810 in 1915. Ontario in 1917 produced 28,714,352 lbs., value \$11,219,029 as compared with 24,680,109 lbs., value \$8,031,997 in 1916, and 26,414,120 lbs., value \$7,534,653 in 1915. For all Canada the average wholesale price of creamery butter works out to 39 cents per lb., as compared with 33 cents in 1916 and 30 cents in 1915. By provinces, the price for 1917 is highest in British Columbia, 46 cents; the prices in the remaining provinces ranging as follows: New Brunswick and Nova Scotia, 41 cents; Prince Edward Island, 40 cents; Quebec, 40 cents; Ontario, 39 cents; Manitoba and Saskatchewan, 37 cents, and Alberta, 38 cents.

Factory Cheese.

The total production of factory cheese in 1917 was 194,904,336 lbs., value \$41,170,563, as compared with 192,968,597 lbs., value \$35,512,622 in 1916, and 183,887,837 lbs., value \$27,097,176 in 1915. Ontario and Quebec together produce 97 per cent. of the total factory-made cheese in Canada. In Ontario the quantity produced in 1917 was 121,173,086 lbs., value \$25,771,944, as compared with 126,015,870 lbs., value \$23,312,935 in 1916, and 125,001,136 lbs., value \$18,831,413 in 1915. The average wholesale price of factory-made cheese for Canada was for 1917, 21 cents per lb., as compared with 18 cents in 1916, and 15 cents in 1915. For 1917 the highest price per lb. was in British Columbia, 30 cents, and in the other provinces the average price was close to 20 or 21 cents per lb.

Other Data.

The total value of the capital invested in the creameries and cheese factories of Canada in 1917 was \$19,628,000. The number of employees was 10,346, and their salaries and wages amounted to \$5,446,446. The amount paid to patrons was \$73,873,245 and the total expenditure, including fuel, \$834,036; materials, \$3,844,698, and miscellaneous expenses, \$2,498,334, was \$86,496,759. In addition to the value of the production of butter and cheese, other products were manufactured to the value of \$18,424,485; so that the total value of the products of dairy factories in 1917 amounted to \$93,822,235.

The Fat Test of Milk.

What is the average fat test of milk? It is well known that this test is very variable, and that a cow may be a very heavy producer but not a high tester, F. Hens, Chief Dairy Instructor for Western Ontario, recently reported the average fat test as 3.25 per cent. in Western Ontario. But how much variation is there and at what test would you expect to find the largest group of cows. G. G. Publow, Chief Dairy Instructor for Eastern Ontario, has just completed 31,714 tests, including the milk of every patron in Eastern Ontario. The following is extracted from his annual report at the Eastern Dairymen's convention held recently:

"For some time, owing particularly to the discussions on the payment for milk on a fat basis we have been endeavoring to have tests made of the milk of every patron in every factory in Eastern Ontario. We did not have this completed in time for my last report, but this year we have it finished and I have arranged it to show the number of samples varying one-tenth per cent. all the way from 2.5 per cent. up to 5 per cent."

HORTICULTURE.

Planning the garden on too large a scale is likely to mean that none of it will be cared for as it deserves.

Grapes should be pruned now, if this has not already been done. Any mild day after the New Year is the right time.

If we really knew as much about pruning as we sometimes think we do, we would use our saws less and our heads more.

When pruning any tree or plant remember that you need not necessarily, and should not in fact, cut off more large limbs or branches than is absolutely necessary.

There are always some new orchards planted each year and some empty spaces to be refilled in the orchard. Now is the time to make a very careful, final selection of varieties.

What about that unsightly strip along the fence? Couldn't it be turned into a pretty flower garden, helping to beautify the home, without taking too much time and trouble?

It is a good thing to remember when planning our treatment of the orchard for the coming season, that no tree can produce a crop of fruit unless it is well fed. Feeding the trees is of first importance.

Why not send for one or two seed catalogues from reliable firms and plan for a "quality" garden in 1919? A good garden will aid in producing a healthy diet and will be a great convenience to the housewife.

There are few if any places where strawberries will not succeed in Eastern Canada. This delicious fruit makes a welcome addition to the products of the garden and should be found,— a row or two at least—on every farm.

Serious Depression in Ontario Apple Growing.

EDITOR "THE FARMER'S ADVOCATE":

I am more than pleased to know you are taking up this problem of the fruit industry. It has seemed to me for some time that unless something is done, we in Canada are likely to find ourselves in a bad way for a supply of fruit for our tables. The commercial grower of fruit is intensely interested, but even his interest is subordinate to that of the consumers of fruit, most of whom appreciate the importance of fruit in the dietary, and who should certainly not be allowed to suffer for lack of this important and necessary element. In a recent editorial you gave due credit to fruit growers for adapting themselves so thoroughly to war-time needs, and while we all recognize that fruit is not so essential to victory as other food products, we should nevertheless not lose sight of the fact that fresh fruit is indispensable to health. From a national standpoint, it would certainly be a calamity if our fruit-growing industry were allowed to fall into decrepitude, and I sincerely trust that through your efforts in this matter government agents and others in a position to do so, will take whatever steps are necessary to put our fruit growing industry on a sound and permanent basis.

Speaking with reference to the important industry of apple growing in the Province of Ontario, it is my opinion that the present situation is bad and is steadily becoming worse. We have had several bad seasons in a row, with more or less complete crop failure, or with

Milk.

of milk? It is well known, and that a correct not a high tester, for Western Ontario, test as 3.25 per cent. Each variation is there to find the largest Chief Dairy Instructor completed 31,714 tests, in Eastern Ontario. His annual report at a held recently: In the discussions on basis we have been of the milk of every in Ontario. We did for my last report, and I have arranged varying one-tenth cent. up to 5 per

3.1	3.2
2,301	2,724
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FUTURE.

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low-grade fruit in consequence of weather conditions favorable to disease and insect pests. Labor costs, which constitute by far the most important item entering into cost of production, have been climbing to points hitherto unprecedented. The result is, as stated in your editorial, that the majority of orchards have been allowed to fall into neglect. This is particularly true of the small orchards—those up to five or six acres in extent, and very frequently those up to ten or even more acres in size. In point of fact it is not too much to say that the small orchard in the Province of Ontario has dropped out of sight as a factor in production. Inasmuch as a very large percentage of the apple acreage of Ontario consists of these small orchards, it is quite obvious that the present situation is one of very serious depression. The present is the critical time and, unless vigorous action is taken, the industry will suffer permanently or take many years to recover its normal healthful tone.

It is to be noted that the orchards above a certain size are, for the most part, being well cared for, and it is in this fact that hope for the future lies. It is surely not too much to say that if the small orchards are being allowed to pass into neglect it is because they are unprofitable under present conditions, and, conversely, if the large orchards are being cared for it is because it pays even under present conditions, to look after them. Just where the line is to be drawn between the profitable and unprofitable orchard in Ontario at present might very well be the subject of a special Government inquiry, and I would strongly urge an accurate and comprehensive survey in order to determine the minimum size an orchard requires to be to justify the expense and care and attention under present conditions in this province. Other definite points which should be determined are with reference to conditions making for success, such as soil, drainage, location, shipping facilities, varieties, the use of fertilizers and manures, as well as details of spraying and tillage practices. This matter of an accurate survey of present conditions might very well receive special attention from the Ontario Fruit Growers' Association in their forthcoming annual convention.

It remains to be pointed out that this change in the conditions of apple production is being brought about as a matter of economics, and is, moreover, entirely normal and quite to be expected under the circumstances. Anyone who has travelled through the apple-growing districts of New York State will realize that the new conditions appearing in our horticulture are identical with those which appeared long ago in the horticulture of the older and more established states to the south of us. Apple growing in New York State took on years ago the aspect of large scale production from units of comparatively large size. In Oxford County, Ontario, there are to-day numerous first-class orchards of good varieties of ten or fifteen acres in extent with which the owners entirely refuse to be bothered. Many of these are rented by other parties, and while such a scheme may be encouraged as a temporary expedient, it is certainly not to be taken as a model for the future development of the industry. The fact that an operator renting orchards as a business requires to rent several in order to get acreage enough to make the venture worth while, is additional proof, if any were needed, that the future of apple growing lies in the large orchard.

Another important point which should be thoroughly gone into, in case a survey were made, is the matter of whether or not it is possible to conduct apple growing as an exclusive specialty on a large scale, or whether it can be satisfactorily combined with other industries such as stock raising, dairying, and the like. The writer is of the opinion that the best possible economic basis for apple production is a combination of apple growing with general fruit growing, such as is practiced, for example, in the Burlington district. Apple growing there is carried on along with the growing of pears, plums, cherries, raspberries, currants, gooseberries, and strawberries. No doubt peaches and grapes would be included in the combination in a commercial way if the climate of the locality were as well suited to them as it is to the fruits mentioned.

Other important problems are the selection of satisfactory commercial varieties which would be hardy enough to avoid the very serious losses occurring in

Ontario from winter killing of tender sorts. The indications are that Baldwin, for example, is not to be depended upon for hardiness. How far it is safe to plant it in Ontario is a serious problem. On the use of fertilizers we have very little information, but you are undoubtedly correct in stating in your editorial that it is absolutely impossible to secure profitable crops without feeding the trees. My own opinion is that there is greater improvement to be made in the matter of feeding the trees than in any other feature of our orchard practice.

Concerning new markets, it has long seemed to me that our high-grade Spies, Snows, McIntosh, etc., would find a ready market at top prices in the large cities of the United States, many of which lie within easy reach. In mentioning this matter to Ontario shippers, I have been assured by several experienced men that there is an excellent market for our best grades, but that we are in the unfortunate position of not being able to assemble these fancy grades in sufficient quantity to justify shipment to these markets. I feel very confident, however, that we have in Ontario a class of fruit which is unsurpassed on this continent and, since the highest prices for choice fruit are obtained in the cities referred to, it seems to me it would be well worth while to connect up with these markets.

As to united effort on the part of the growers there is obviously great need for co-operation at present if the industry is to be revived. I am inclined to think, however, that the present tendency towards large orchards is the correct one, and that the large orchard would enjoy the advantage of being able to market independently. Most of our best growers are far enough from market to feel the necessity of co-operative action and fully realize, no doubt, that strong co-operative societies are the life of apple production in Ontario at present. I am afraid, however, that the time has gone by when we can advise the owners of small orchards to give much attention to them even under best conditions of organization.

Ontario Agr. College, Guelph. J. W. Crow,
Professor of Horticulture.

Vegetable Growers Hold Best Convention in Recent Years.

The fourteenth annual convention of the Ontario Vegetable Growers' Association was held in the new Masonic Temple, at the corner of Yonge and Davenport Streets, Toronto, on Wednesday, January 22. President J. J. Davis, London, opened the morning session with the presidential address. Mr. Davis said:

"The past two years have been a period of trial to a great many vegetable growers, owing to the fact that everybody from the Minister of State down to the school boys and girls were exhorted and induced to grow vegetables, and naturally such keen competition as this was keenly felt by those whose livelihood depended on the sale of vegetables, but I am proud to say that the vegetable growers of the province as a whole accepted the situation in a good spirit, as a necessity arising out of the war; and carried on notwithstanding. I anticipate that this competition will subside, if it does not altogether die out, now that the fear of a food shortage is over; and it may well prove to be not altogether a loss to us, as undoubtedly a great many people have learned that fresh vegetables are a wholesome and necessary article of diet, and a great many others will have acquired a liking for them.

"The war has also had an adverse influence on our organization as regards membership, as many of our younger members went overseas and those who were left had a great deal more work thrust upon them and could not give of their time as freely as heretofore, but now that the war is behind us and the boys returning I trust we shall be able not only to recover lost ground, but to make substantial advances; and I am able to report a renewal of activity and enthusiasm in the London branch, and that plans are under way which will, no doubt, materially add to our strength.

"I should like to say a word on behalf of the returning soldiers. It may be that some of them will take up vegetable growing and some of them perhaps will not have had much experience, and it occurs to me that we who have had years of experience may be able to render them invaluable help in return for the services they have rendered us."

The report of the Secretary-Treasurer dealt with many matters of interest, and quotations are herewith given:

"It was considered advisable by your Executive not to push the organization of new branches during the war, but the consensus of opinion is that 1919 should be made a year of great development in the work of our Association. Many new branches should be formed, and the purchasing of supplies co-operatively should be taken up with zeal and enthusiasm along modern business lines. Another matter that should receive the attention of your new Board is the marketing of your products, which has worked so well among those of our branches, which have taken this up in a business-like way.

"I am pleased to report that our crop competitions this year are quite up to the standard, and the quality of the exhibits of the prize-winners shown at the Canadian National, Central Canada and Western Fairs was never surpassed. The crops entered were: onions, tomatoes, celery, early potatoes, cabbage and melons. Keen interest was shown in the garden competitions, and the judges report progress along this excellent line of endeavor.

"The members of our Association have pretty largely adopted standard varieties of potatoes. Irish Cobbler

and Early Ohio for the early crops are apparently the ones that have given the best satisfaction, particularly in the older sections of Ontario. In the tomato crop there would seem to be a necessity for standardization, as several varieties are being grown in each district. For instance, in districts 1, 2 and 4 competitors entered in six varieties and in district 3, in five.

"It has been suggested, with regard to the arrangement of the districts, that a new one be formed in the Niagara Peninsula. It will be necessary, before a new district can be organized, that there be not less than four branches formed in that section. If this was done there does not seem to be any valid objection to the formation of a new district. Representation will, doubtless, be made by the delegates from that section."

The financial statement shows total receipts amounting to \$2,037.44, including an \$800 grant, \$207 entry fees from field crop competitions and a balance of \$880.53 from 1917. Expenditures amounted to \$1,378.29 leaving a balance of \$659.15. In the discussion following the Secretary's report, attention was drawn to the necessity for careful selection work in seed growing. It was pointed out that the best procedure is to get the best seed possible from a standard seed firm and grow one's own seed from this stock, practicing careful selection in future years. The advantage was also emphasized of having branches established, so as to organize the industry as well as possible.

Report of Vegetable Specialist.

A. H. McLennan, Vegetable Specialist for the Ontario Department of Agriculture, reported on the work of the past season:

"The cabbage maggot has been very troublesome this year; many new sections reporting it, and it will be necessary to work in these during 1919. Very satisfactory results were obtained this year in the control of cabbage maggot with corrosive sublimate; 1 ounce to 10 gallons of water. This remedy has been tried for the past seven years and has proved satisfactory. We can show many results where only 2 per cent. loss occurred. 322 cabbage in one patch were treated at a cost of \$1.75. Prof. Caesar, who has taken up the study of the life-history of this pest as well as the onion and radish maggot, has obtained similar results. The one point that must be kept in mind is the time of first application of the spray. This should be the fourth or fifth day after setting, and each week thereafter for three weeks. The egg stage is the easiest to destroy this pest. Note when the eggs are laid by looking around the plant stem for them. There is only one disadvantage to this remedy, and that is its effect on the bacteria in the soil. For this reason we tried out a new remedy this year—a saturated salt solution—and hope to get more definite data next year. We often find growers who desire to follow late cabbage or cauliflower after the early crop. Often the early crop has been badly affected with the maggot. This year we found that we could save 90 per cent. of the late crop even where the

soil in which they were planted was filled with eggs and larvae.

"We had been trying to find some method to control onion blight. Bordeaux mixture apparently has but little effect on it. Last year we tried using a top dressing of nitrate of soda when the bulbs were forming, and results justify our trying it out more completely this year. Black heart in celery can be controlled by the use of "black leaf 40" in the Bordeaux spray, 4 ounces to 40 gallons Bordeaux. Our work this year shows that this disease may be caused by both the tarnished plant bug and a black-green aphid. On a patch containing 352 dozen we had a loss of 5 dozen due to black heart, after careful successive spraying. Great care, however, must be taken during blanching, as the conditions at that time are favorable for the spread of the disease. It is necessary to prevent any sweating.

"That celery blight can be cured by Bordeaux mixture has been amply demonstrated again this year. The addition of distillate paraffin oil as a sticker was tried, but proved unsatisfactory because it burned the foliage. Dusting with sulphur and lime dust was also tried and proved satisfactory. Next year we hope to carry on this dusting work on a larger scale. Work was carried on at London with formalin treatment, 1 pint to 20 gallons water. This was done on Mr. Geo. Bycroft's patch and one application proved satisfactory, although some slight burning was occasioned where too much liquid was applied, or the spray coarse. This method is also worthy of further trial, especially where the disease has only obtained a slight hold on the patch, as it kills immediately. It should be followed with Bordeaux mixture.

"Considerable success has been obtained in the province in the control of tomato mildew in greenhouses by burning sulphur on a shovel. A teaspoonful of sulphur is wrapped in paper, then set fire to and, while it slowly burns, a man carried it up and down the alleys in the house. Aphids on cabbage and potatoes were completely controlled by the use of "black leaf 40," 1 pint to 40 gallons of water. One thorough application proved effectual."

Survey of Vegetable Industry.

F. F. Reeves, Humber Bay, discussed the results of the survey of Ontario vegetable growing, completed this year. This survey covered only the commercial vegetable growers, exclusive of men growing canning crops for the factory. The acreages in vegetable crops vary from 1,841 acres in potatoes to one-sixteenth of an acre in dandelions. The average value of this land per acre is about \$500, varying from \$100 to \$1,285. The speaker brought out the fact that there are practically no records as to the cost of production, the farm being operated in most cases by the owner and his family. There is, also, practically no use being made of the available information on diseases and insect pests. Mr. Reeves thought that some better means must be found for getting this information to the growers. Information as to soils show that sandy loam largely predominates. The acreages devoted to the 20 most important small fruit and vegetable crops are as follows: potatoes, 1,841; tomatoes, 1,675; corn, 1,439; onions, 1,184; parsnips, 1,040; cabbage, 863; beans, 371; cauliflower, 356; carrots, 341; raspberries, 310; cucumbers, 275; beets, 268; strawberries, 263; rhubarb, 237;

muskmelon, 236; turnips, 195; celery, 189; peas, 153; asparagus, 95; squash, 90.

Some information as to the number of growers and the acreage in vegetables and small fruits in several of the large centres is given in the table accompanying.

Acreage in Small Fruits and Vegetables.

District	No. Growers	Acreage in crops	Acres in vegetables	Acres in small fruits
Toronto.....	518	8,732	3,910	435
Sarnia.....	140	5,292	1,170	36
Leamington.....	143	3,320	629	197
Simcoe.....	34	2,626	150	42
Hamilton.....	107	1,322	998	259
Windsor.....	69	1,584	737	58
London.....	101	1,824	724	54
Brantford.....	59	1,974	526	15
Welland.....	69	668	424	90
Ottawa.....	46	851	319	5
St. Catharines.....	42	1,025	401	346
Total (45 Districts).....	1,692	34,933	12,140	1,886

C. W. Waid, East Lansing, Michigan, delivered an illustrated lecture in which he drew attention to various methods of soil sterilization in successful use by Michigan growers. Instances were shown of labor-saving devices, including the use of a manure spreader inside a greenhouse, and a small truck and track for delivering baskets of plants and the mature product from one part of the house to another.

Potato Grading.

The question as to whether the Association should adopt the suggested standardization of potatoes was discussed by H. Broughton, Sarnia. The speaker said he could only give his own opinion, and remarked that within his own association there is a difference of opinion as to the value of grading. Mr. Broughton thought that if the present optional potato grades were made compulsory it would greatly benefit the industry and the individual grower. As a grower, the speaker would prefer to sell his crop under standard grades. He thought the increase in price due to grading would be sufficient to make up for the smaller ones sold at a discount. He thought that owing to competition from early-maturing sections and the fact that for a period of two months, July and August, Ontario potatoes can most profitably be sold before they reach full size and maturity, the present requirement of 1 1/4 inches for number one potatoes should be made inoperative during these months.

The potato discussion was continued by C. W. Waid at the afternoon session. The speaker is the Secretary of the Potato Association of America, and well qualified to discuss standardization of grades. It was pointed out that grading is of equal value to both grower and consumer and was inaugurated in the United States as a war measure, largely because of the necessity for economizing in shipping facilities and labor. Considerable waste occurs where grading is not done, as is instanced by the fact that from 25 to 100 bushels are often thrown out from a single car of ungraded potatoes, and this must be done at the time of unloading when, perhaps, one or two teams and several men must wait on the process. The U. S. grades are identical with the optional grades incorporated in the Canadian Fruit Marks Act. Many feel that only one grade is necessary, although in Florida, for instance, three grades are wanted. The round mesh is used so that long as well as round potatoes can be sized with equal facility. The speaker thought that it will not be long before nearly all the growers will favor some system of grading. One group of Michigan growers, 6,000 strong, who market co-operatively, have turned over completely since 1917, in favor of grading. It is hoped that every dealer in potatoes will be licensed, and that the recommendations made as a war measure will be modified so as to meet all legitimate objections. Over-sized, under-sized, and scabby potatoes will probably be taken care of by factories manufacturing potato products. So far, second grade potatoes have sold for from 50 to 60 per cent. of the price received for number ones.

"Successful Co-operation Among Vegetable Growers," was dealt with by J. W. Smith, Sarnia. The speaker is a member of the Lambton County Co-operative Association, and they ship in a wholesale way to Ottawa, Quebec and Montreal. It was found wise to specialize on "service," and if a car is ordered to be shipped on a certain date, every effort is made to ship it on time. The speaker stated that they had, in their association, endeavored to standardize potato varieties, and had reduced them to three, Early Ohio, Irish Cobbler and Green Mountain.

Indoor Tomato Growing.

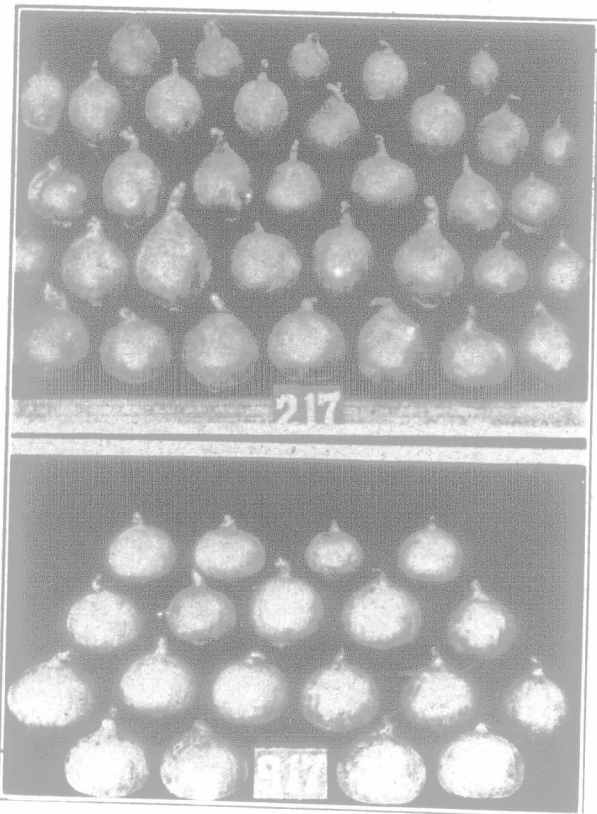
J. J. Davis discussed briefly the question of "Inside Tomato Growing," and emphasized the fundamental question of variety, enumerating Livingstone's Globe and Bonny Best as two that have given pretty general satisfaction. Earliness is also a factor, and because the tomato crop often depends on getting the lettuce crop off, the speaker said he liked to grow his plants in pots so that they could be held until space is available and could be allowed to grow to large size before setting out. Plants should not be fertilized so as to grow too

rapidly, Mr. Davis preferring not to fertilize until the fruit has begun to set. In this way 7 or 8 trusses of fruit can be secured before the plants reach the wire. "The money," said the speaker, "comes off the first four trusses, especially the first three." Mr. Davis does not think it pays to grow a fall crop. The use of a spoon has been found most satisfactory to assist fertilization in dull weather when the bees are not working. So far as pruning is concerned care should be taken to see that pruning is not too severe, since the development of the plant depends upon its leaves, which are really the lungs of the plants. There seems to be no particular advantage in cutting the plants off at a certain height; at least this year's experience in this regard, due to force of circumstances did not prove the disadvantage of allowing the vines to grow. It may be that the crop does not mature so easily.

The most successful treatment for the serious tomato mildew disease has been found to consist in walking through the house carrying a shovel, on which is a small amount of burning sulphur. This creates sulphur dioxide gas which is very irritant and poisonous. The best method is to pour a small amount of sulphur (a tablespoonful) on a piece of crumpled paper, and one should never stop walking through the house with the burning sulphur. Growing lettuce and cabbage plants between the tomatoes has been found very successful while the tomatoes are still small.

Seed Production.

Professor J. W. Crow, Department of Horticulture, O.A.C., Guelph; O. J. Robb, of the Horticultural Experiment Station, Vineland, and Geo. Bridger, Sarnia, discussed "Experiments in Growing Vegetable Seed." Prof. Crow recounted some interesting results of work begun in 1915 with lettuce, celery, onions, beets, parsnips and carrots. This selection work was



Yellow Globe Danvers Onions.

If vigor can be retained self fertilization is the quickest method of producing high-class strains. Lower group shows 36 per cent. of progeny of desirable type. Note extreme variation above.—Horticultural Department, O. A. C., Guelph.

undertaken to purify strains of certain varieties of vegetables, in order to assist in providing for a supply of home-grown vegetable seed. The work is carried on in co-operation with the Dominion Seed Branch, and the endeavor is to produce stock supplies of strictly high-class seed to be distributed to commercial seed growers, but not for general sale. At present small quantities of the following seeds are on hand for distribution: 50 ounces Paris Golden celery, 3 ounces Grand Rapids lettuce, 45 ounces Wayahead lettuce, 3 1/2 ounces Jersey Wakefield cabbage, and 4 lbs. spinach. Most of these germinate 80 per cent. or better. In addition, there is a limited amount of stock seed which will be placed under contract, and from which larger supplies should be available. These quantities are: 75 lbs. Detroit Dark Red beet, 45 lbs. Chantenay carrots, 17 lbs. Southport Yellow Globe onions, and 4 lbs. parsnip. The accompanying photographs give some idea of the results secured and the nature of the work. O. J. Robb said that an endeavor had been made at Vineland to find out the suitability of our soil and climate for seed production, and whether or not home-grown seed can compare favorably with that supplied by seed houses. He said it is comparatively easy to grow seed of roots and tubers and that large bulbs produce more seed than small ones. The number of seed heads on balls really determines the yield of seed, according to work done in 1918. Samples have been sent out to many growers throughout the province, and these have proven of value. Generally speaking, the work with onions, beets and carrots has been very successful, and a start is being made from a few selected plants of celery, cauliflower and cabbage. Yields as follows have been received:

Yield of Seed Per Plant.

Seed	In quantity	From few selected plants
	ounces	ounces
Turnip.....	2.24	8.20
Parsnip.....	1.12	3.50
Onions.....	.64	1.00
Carrots.....	.65	.80
Beets.....	2.93	—

Mr. Bridger reported some successes in growing carrots, beets and turnips from 20 to 24 inches apart in rows, parsnips a little farther, celery about 24 inches, and cabbage 3 feet each way. Carrots, beets, parsnip and turnips are planted so that there is about an inch of earth above the crown since when they strike root they will raise up. Better grades of seed have been secured from sandy land lying rather high. A seed cleaner is used that costs about \$35 or \$40, and must be purchased in the United States.

W. J. Cook, Catawaqui, took up the question of "Successful Onion Growing." The speaker grows several varieties and aims at 1,000 bushels per acre. The land is a light clay loam, with sufficient clay to form a crust. Early cabbage is grown the summer before the onion crop, to clean the land. Transplanting onions are grown in hot-beds, and the "damping off" fungus is a serious trouble. The young plants are clipped back once and sometimes twice, to a height of 2 1/2 to 3 inches, the last time just before planting. Rows are marked 15 inches apart, and, if the soil is very dry, put a little water in the furrow to keep the dew worms from pushing out the young plants. If irrigation is installed, the plants should be watered right after planting. Transplanted onions can be used as bunch onions for a nearby market for a long time and at one cent apiece a return of \$1,000 per acre can be secured. Onion blight is severe and appears as a purplish mildew on the side of the leaf, and may reduce the crop from a third to a half in two weeks. There are critical periods in the treatment of all diseases, and in this case the critical period is when the bulb is about one-third grown. No solution that is entirely satisfactory has yet been found.

J. D. Nairn, Hamilton, discussed the "Growing and Marketing of Green-house Vegetables." Mr. Nairn now has 44,000 square feet under glass. Everything is grown on the ground, but in one house. Lettuce, parsley, cucumbers and tomatoes are being grown for spring crop. The lettuce grown is all Grand Rapids, and cutting was started October 15 and is still on. About five carloads of manure and two tons of fertilizer per year are used on the ground that is under glass. Davis Perfect cucumbers are grown. The spring crop of tomatoes is planted 16 by 32 inches. The plants are trimmed to single stems on steel rods one-quarter inch by 7 feet. The plants are mulched heavily with manure when the bottom fruit is set or when most of the leaves are off.

Lettuce should be cut when the sun is not hot and plunged immediately into water. An orange case will hold two dozen. Sometimes two motor truck deliveries are made each day. If the lettuce is washed and put in paper and boxes it will keep out the air, and the lettuce will remain fresh for a week or more.

Judging Vegetables.

"Judging Vegetables by Score Card" was a subject discussed in a very interesting manner by A. J. Logsdail, Horticulture Division, Central Experimental Farm, Ottawa. Mr. Logsdail reviewed his endeavors to gather together score cards from different authoritative sources but found no two to agree on the same crop. One set, planned as guides for a judge rather than a definite allotment of points for each specific characteristic was declared most desirable. The latter method is likely to and frequently does lead to confusion, due to varying conditions under which crops are grown and exhibited. The speaker urged that relative values should be applied in judging, and that any guide provided should give these points in order of merit. It was further pointed out that if half the points are awarded for package, the package should be essentially suitable for the crop. The speaker also advocated a re-arrangement of the schedule for prize money, advocating fewer prizes where competition is weak and more prizes where there are many entries in a class.

C. D. Syer, Hamilton, discussed "Celery Growing." Paris Golden is used for both early and late crops. "The soil," said Mr. Syer, "I sterilize by saturating it with a solution of formaldehyde of one quart to 25 gallons of water and, on the principle of making doubly sure, I soak the seed for one hour in a solution of 2 ounces of copper sulphate to half a gallon of water heated to a temperature of about 90 degrees."

The soil for plants is loose and porous with well-made compost incorporated in it. The seedlings are transplanted just after the rough leaf appears, and they are planted 30 by 6 inches in the field about May 24, and watered well immediately. From then on the plants are watered about twice weekly and sprayed once a week. Late celery is sown in the field about April 15 and transplanted direct into permanent rows 30 inches apart about July 1. From 35 to 40 tons of well-rotted manure and one ton of fertilizer are used per acre.

A. McMeans, Dominion Seed Branch, Ottawa, discussed "Vegetable Seed Production" very briefly. The speaker said that in the U. S. last July 262,643 acres were devoted to vegetable and root seed production. Over seventy per cent. of this acreage is west of the Mississippi. In California alone 6,882 acres are devoted to onion seed production. Washington grows 36.7 per cent. of

Plant.

From few selected plants	ounces
	8.20
	3.50
	1.00
	.80

successes in growing 20 to 24 inches apart celery about 24 inches, carrots, beets, parsnip there is about an inch when they strike root of seed have been rather high. A seed \$5 or \$40, and must be

up the question of The speaker grows 100 bushels per acre with sufficient clay to grow the summer land. Transplanting the "damping off" young plants are clipped to a height of 2 1/2 to planting. Rows are the soil is very dry, keep the dew worms ants. If irrigation is watered right after can be used as bunch a long time and at 1,000 per acre can severe and appears of the leaf, and bird to a half in two in the treatment of critical period is when. No solution that found.

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"Celery Growing." y and late crops. e by saturating it one quart to 25 of making doubly in a solution of 2 a gallon of water degrees."

porous with well- The seedlings are appears, and they about May 24, and en on the plants d sprayed once a ld about April 15 nt rows 30 inches ons of well-rotted e used per acre. nch, Ottawa, dis- very briefly. The 262,643 acres were production. Over of the Mississippi- devoted to onion 36.7 per cent. of

the acreage devoted to garden pea seed production in the U. S. Illinois stands first with 3,041 acres of onion sets. Mr. McMeans traced briefly the shifting of seed production centres, due to various influences and pointed out that British Columbia appears to be of great promise in future seed production. The centre for garden pea production, for instance, used to be in Ontario east of Toronto, but because of the ravages of the pea weevil moved to Michigan and finally to Washington. The speaker discussed the practices and circumstances surrounding seed production in California and other seed states along the Pacific coast and the West, pointing out the conditions with regard to soil, climate, moisture, etc.

At the evening session Professor Montgomery, of the Ohio State University discussed, with the aid of lantern slides, the improvement of quality, earliness and disease resistance in vegetables through plant breeding. There were also some excellent moving pictures, put on by the Provincial Moving Picture Bureau.

Resolution.

"Resolved that this organization go on record as favoring an act establishing the standards of grades of potatoes. We are, however, opposed to the compulsory enforcement of the proposed act, when such enforcement will work hardship to both grower and consumer."

The committee recommended that an exception be made from the act in the case of new potatoes marketed in the months of July and August; and also "That a permanent committee be appointed to wait upon the Department of Agriculture and consider with them the various phases of the proposed act before its final adoption."

Officers.

The officers elected for 1919 are as follows: President, W. S. Eborall, Beamsville; First Vice-President, Maurice May, Tecumseh; Second Vice-President, G. H. Poad, London; Secretary-Treasurer, J. Lockie Wilson, Toronto. Executive Committee: W. S. Eborall, M. May, G. H. Poad, J. Lockie Wilson, F. F. Reeves, Humber Bay; J. J. Davis, London; Thos. Delworth, Weston. Directors: Geo. Elvins, Belleville; D. H. Sitter, Sarnia; I. A. Farquharson, Ottawa; C. F. Kitney, Peterboro; Wm. Gathrie, Sarnia; C. W. Dempsey, Stratford; T. K. Aymer, Humber Bay; A. Nelson, Fonthill; J. W. Smith, Sarnia.

POULTRY.

Get this—"at least one hen per acre."

Hens lay perfectly fresh eggs. Why not market them in that state?

Hatch early. Early hatched pullets lay fall and winter eggs. Get ready in time.

Prof. F. C. Elford, Central Experimental Farm, Ottawa, says that poultry and eggs alone could pay Canada's war debt.

It will take about five years, according to reliable authority, before Europe can be self sustaining in poultry products.

Make the hens work for their living. The harder they work to live the more they will work for you. The lazy hen is no layer.

The U. S. Department of Agriculture says that "double the market value of grain may be realized by the feeding of it to hens for egg production."

A dry floor in the hen house with plenty of straw in which the hens may constantly scratch, will help to keep their feet warm and will also help to keep them healthy.

Remember that grain, water and a place to scratch are not all that hens need. They must have animal and green feed also. Sour milk and a mangel or sugar beet to pick at, will supply both.

If you are really interested in your hens, try and find the time to trapnest for a short time at least. You should learn something between now and the hatching season that will be helpful in improving your flock.

Educate the hen. Teach her to keep healthy, to work industriously, to eat all she wants and then collect the eggs regularly. While you are trying to develop intelligence in Biddy, you may learn a few things yourself.

At present we consume 23 dozens eggs per capita per year in Canada. That is less than one egg per day per person, including those used for cooking and in confections. Why can we not increase this consumption to 50 dozens per year.

Here's to you Biddy,
You nervous old scamp.
They say you could pay off our debt.
I can hardly deny it,
But I don't think you'll try it,
For you're not cared for well enough yet.

Egg Eating and Feather Pulling.

EDITOR "THE FARMER'S ADVOCATE":

One of the main causes of egg-eating is large, open nests in which a hen sometimes scratches and tramps around looking for stray kernels of grain, until, accidentally a soft shelled egg is broken. After such an experience that particular hen searches diligently nest after nest, all day long; not for grain, but eggs, which she soon learns to dispose of quite easily, whether they have soft shells or hard. In a few days she has quite a few hens educated to the trick and as a result no eggs find their way into the poultryman's basket.

See that your hens have lime, old plaster, oyster shell and grit, so that the egg shells will be hard and not easily broken. But this alone will not stop them when once they are thoroughly educated to egg-eating. You must darken the nests. Have them boarded tight, top, bottom and sides with the exception of the entrance to each nest, which should be just large enough for a hen to crawl through and the nest itself not too roomy so that when once inside she should fill the nest completely, thus giving her no chance to pick at the eggs. Also the approach to the nests should be darkened (dim light) which would leave the nests quite dark so that even if eggs are broken, the hens cannot see to eat them. Such a row of special-size, darkened nests will prevent further trouble and should have been attended to when first your flock was put into winter quarters. Do not wait until they get this egg-eating habit, before darkening the nests.

The other bad winter habit is feather-pulling. I have seen flocks in early spring in which 50 per cent. or more of the birds had almost every feather picked off their necks from beak to crop. Such fowls are generally too closely confined and improperly fed. Add to their ration green food (mangels, sprouted oats, or sweet apples) and beef scrap. Force them to work or their grain by scattering it in a deep litter of coarse straw.

If they still persist in pulling feathers, soak some

their winter quarters, it is on the living specimens they continue to search for juicy pin feathers until, with some birds, it gets to be a mania and they pull, pull, pull from morning till night. You taught them to eat feathers: now stop them if you can.

Burn or bury your feathers, (don't dump them for the chickens to pick over) and thus save yourself another winter, much trouble and possibly many words, directed at your cannibal hens, as you are pleased to call them, remembering always the old proverb, "An ounce of prevention is worth a pound of cure."

Northumberland Co.

FARM BULLETIN

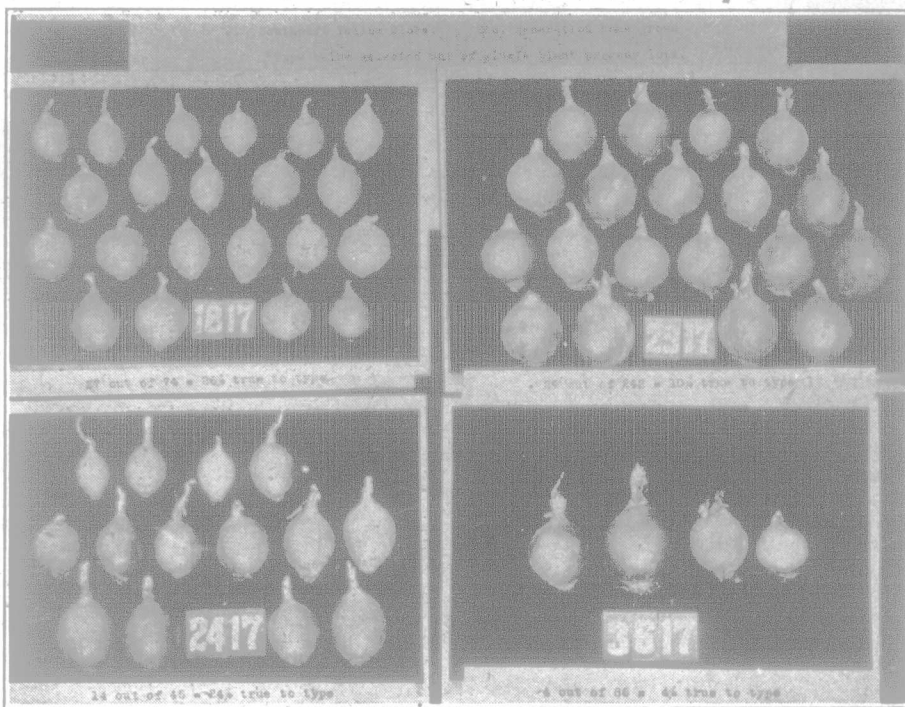
Annual Meeting of Plowmen.

The annual meeting of the Ontario Plowmen's Association was held in Foresters' Hall, Toronto, on Thursday, January 23; and was marked by the usual attendance, which is never very large. W. C. Barrie, the President, occupied the chair and, as generally happens, most of the discussion centred about the selection of a location for the Provincial Plowing Match for 1919. It will be recalled that the 1918 match, which was to have been held on the grounds of the Central Experimental Farm, Ottawa, on October 16, 17 and 18, was cancelled by the order of Hon. T. A. Crerar, Minister of Agriculture, who withdrew the use of the Experimental Farm grounds for this purpose, because of the prevalence of influenza in the vicinity of Ottawa at that time. As noted in the columns of "The Farmer's Advocate" the following week after the plowing match was to have been held, there was considerable confusion and dissatisfaction in several quarters due to the late action in the matter, and it was brought out at the meeting of the plowmen on the 23rd that the whole question had been threshed out pretty fully the day previous at a directors' meeting.

The matter was, however, discussed to some extent at the annual meeting and J. Lockie Wilson, the Secretary, read some correspondence with the Minister of Agriculture at Ottawa relative to the expense which had been incurred by plowmen and manufacturers, a large number of whom were on the way to the match with their equipment and exhibits, and some of whom had actually arrived at Ottawa before the match was cancelled. A letter from Mr. Wilson to Mr. Crerar, under date of December 3, enclosed an account amounting to \$3,021 made up of expense accounts of plowmen and manufacturers, who, in good faith that the match was to be held, had made all preparations for it. The letter stated that since the match had been cancelled by the authority of the Fed-

eral Minister of Agriculture, and since the Plowmen's Association had no funds wherewith to meet these accounts, the Dominion Department of Agriculture was expected to pay them. This letter was written on the authority of the Board of Directors, and on December 19, no reply having been received, another was written. The Deputy Minister replied on December 23, stating that no definite action had yet been taken, but that the Minister believed that except for a few plowmen, the manufacturers and business firms should bear the loss themselves. The Deputy Minister said that the expenses incurred and consequent loss was not due to any untoward action on the part of the Government. The Minister was reported to be in sympathy with the plowmen, but at that time no appropriations were available out of which the account could be paid. A copy of this letter by direction of the Board was then forwarded to each plowman and manufacturer, with a request to the latter to forward their account to the Plowmen's Association since the directors did not feel that the manufacturers, having acted in good part in the matter of contributing to the machinery demonstrated connected with the plowing match, should be forced to sustain any loss due to the failure of the match to materialize. Mr. MacFarlane, representing the manufacturers at the meeting, stated that his firm had shipped two cars of material to Ottawa and incurred an expense of about \$400, and that about twenty men were on their way to Ottawa at the time the match was cancelled. Nevertheless the speaker stated that his firm would be willing to assist the Plowmen's Association in the future, and would exhibit this year wherever the match was held.

Deputations from Chatham, Hamilton, Ottawa and Orillia were heard, asking that the 1919 match be held in their respective centres. Good arguments wer



Southport Yellow Globe Onions.

Ordinary selection in progeny lots resulting from open fertilization shows variation from 26 per cent. to 4 per cent. of desirable types. Compare with possibilities in self fertilization. Horticulture Department, O. A. C., Guelph.

bitter aloes in alcohol and thoroughly daub on the remaining neck feathers of the denuded birds. And if this does not stop them, about the last resort is to watch for the guilty "pickers" and pare their beaks down till they almost bleed: this makes their beaks very sensitive and also prevents their getting a good grip on the feathers.

Do I hear somebody remark, "my hens get this feather pulling habit each winter, yet I feed them a balanced ration—green food, animal meal, and make them scratch for their grain in deep litter."

Let me ask you a couple of questions. Do you not each winter have one or more cases of fighting in your flock? It may be two females or two males and you find one or more birds with bloody heads and neck feathers after the fray. Did you leave that besmeared bird amongst your flock, while it cleaned off the blood with possibly some help from the other birds, or did you immediately place that bird when found, in a coop by itself, till the bleeding had stopped, then washed off the remaining dried blood, before putting back in the original flock? Just such neglected cases, sometimes start a flock in a frenzied feather-pulling contest, which never stops till they get out again the following spring on a free grass range.

Now the other question. When you kill fowl for your own use or for market what becomes of the feathers and heads? Do you throw these in a heap where the fowl can pick them over, searching for bits of meat, sometimes getting a piece with feathers attached, or, again, deliberately eating all the big juicy pin feathers, or do you burn or bury them?

If you have been careless in this matter and allowed your hens to eat these feathers thrown to them in heaps on the ground, then you may expect them to acquire the taste for "more feathers." But now, when confined to

presented from each of these places, particularly from the latter three, Hamilton and Wentworth County sending representatives of the Hamilton City Council, the Hamilton Board of Trade, the Wentworth County Council, the Boards of Agriculture of North and South Wentworth, and the Women's Institute. It was decided that on account of the large sum of money needed to provide adequate prizes and to meet advertising and other expenses, the decision of the Board as to actual location would not be made known until a written statement had been received from each of these delegations stating exactly what they were willing to provide. Generally speaking, the stipulations are a cash sum of \$1,000, in addition to a banquet for two hundred persons; this banquet refers to the annual banquet given to the plowmen at the close of the match. It was suggested that possibly an Eastern and Western match would be better than one covering the whole province, since the latter required a number of years to adequately cover all the territory. It was thought, however, that now was hardly the time to bring in this innovation.

An amendment was passed to the constitution providing that in addition to railway fare, when attending directors' meetings as in the past, the directors should receive \$3.00 per day to meet a part of their travelling expenses.

Officers.

The officers of the Association are selected by the election of fifteen directors at the annual meeting, who then elect their executive officers and, when the location of the plowing match becomes definitely known, select three additional directors from that centre. The directors elected are as follows: D. D. Gray, Ottawa; Wm. Doherty, Eglinton; W. C. Barrie, Galt; Jas. McLean, Richmond Hill; A. E. Wilson, Perrytown; L. W. Smith, Millbrook; F. Weir, Agincourt; J. H. Hilborn, Bright; F. B. Weldrick, Maple; A. B. Rose, Echo Place; John Lee, Orillia; S. Tyndall, Richview; John Captain, Onondaga; M. Gowanlock, Orillia; W. H. Patterson, Agincourt. At the suggestion of R. H. Abraham, Agriculturist for the Indian Reserves in the Province of Ontario, an Indian, John Captain, was made a director in view of the fact that one Indian branch of the Association is already in existence and several more are likely to be formed. The officers elected are as follows: President, W. C. Barrie; First Vice-President, A. E. Wilson; Second Vice-President, D. D. Gray; Secretary, J. Lockie Wilson; Treasurer, T. A. Patterson; Auditor, G. de W. Green. J. Lockie Wilson was again elected managing director for the ensuing year.

Official Statement Re Bacon Hold Up.

Last week the Department of Agriculture, Ottawa, made a statement in regard to the bacon situation which, to a certain extent, clears the air. This interim report will, we hope, be followed up with a thorough investigation of conditions overseas. The statement follows.

"Sales of Canadian bacon are very slack on the European market at the present time. This is largely due to market readjustments which are now going on in Great Britain. Comparatively large quantities of American dry salt bacon are in storage there. This unusual supply of bacon, of a kind not usually used by the British consumer and not relished by him, is reducing consumption. It is anticipated, however, that considerable of the American bacon in question will shortly now be sent to continental nations accustomed to using it, thus relieving the situation in Great Britain. There are no large stocks of Canadian bacon on hand in Great Britain, hence the present cessation of shipments is regarded as only temporary, and need not cause undue alarm. As far as can be seen at present, the British market will be ready to absorb our whole exportable surplus in the near future.

"Our bacon is firmly established in the favor of the British consumer, and no fear need be entertained as to the ultimate and probable speedy re-establishment of regular shipments to Europe. It would be well meanwhile, however, for farmers to ease up on shipments of live hogs and carry them a few weeks longer. Prices will in all probability hold firm if this policy is adopted. There is a grave danger that they may fall unduly and unnecessarily if too many hogs are sent forward before the packers are in a position to handle them conveniently on account of congestion in yards, abattoirs and shipping."

The Evolution of Peace.

EDITOR "THE FARMER'S ADVOCATE":

The conclusion of this great European war is in sight. With the dawn of civilization there developed an organization of clans which seemed to eliminate wars as between individuals. Later came the union of clans into tribes which dispensed with war among different clans. Then came the amalgamation of tribes and finally the development of NATION STATES, which proved effective in doing away with wars among the lesser organizations but laid the basis for bigger battles. We have now had four years of experience with the next natural step in the ladder of civilization—with groups of nations ranged in bitter conflict to utter exhaustion against other groups of nations. The fittest ideals have survived. The natural fruits of this war should be the union of NATION STATES with firm government of international affairs. Let us hope that the mercenary advantages to be derived from trade treaties with weaker nations may be forgotten by the merchants of Germany, and Britain and Austria and France and America so that the statesmen of many powers may proceed unhampered with the establish-

ment of a government of a League of Nations, with headquarters centrally located between eastern and western civilization.

RURAL SKETCHER.

The Bacon Outlook Discussed at Chatham Conference.

Live stock was the chief subject under consideration at the farmers' special meetings, held in Chatham, on January 22 and 23, under the auspices of J. L. Dougherty, Agricultural Representative for the County of Kent. A number of farmers gathered on the first day anxious to hear a discussion on the bacon industry and the market outlook. In opening the conference W. Bert Roadhouse, Deputy Minister of Agriculture for Ontario, drew attention to the importance of these conferences at this time and the wisdom in discussing all matters of production from every angle. He pointed out that while famine conditions exist in Europe they will likely be relieved in the next six months, and the production we are preparing for now will be harvested after a considerable change has been effected in Europe. Nevertheless, he expressed the opinion that the channels of trade which have been developed should be kept open for Canadian products. In times of uncertainty and confusion he advised that we sift out the facts upon which we can rely and then go forward with our plans based on conclusions arrived at after a full consideration of the truths presented. He admitted that the producer cannot control his markets absolutely, but through organization he should be able to get the highest possible price and make his business profitable. Mr. Roadhouse, furthermore, drew attention to the fact that our problems are now problems of plenty to be worked out under conditions of victory, and are not so serious as those which forced themselves on Canada while at war.

The Outlook for the Bacon Industry.

W. R. Reek, Assistant Live Stock Commissioner, Ottawa, told the conference in plain words what was causing the present disturbance in the hog market, and he said that he was confident that the present situation will have no influence on the future. It is the next few years which we must look after now. Mr. Reek's statement was that Britain had in storage 156,000,000 tons of American bacon when the armistice was signed. This was purchased with American credit. This bacon was being reserved by Great Britain against any shortage which might arise out of the submarine campaign. It was not the class of bacon which the domestic English trade calls for. Nevertheless they had it in stock. The Canadian Government requested the Imperial authorities to unload a part of this bacon on to the continent and purchase supplies from Canada. Britain conceded, but United States representatives pressed the point that since the bacon was purchased on American credit that any holes made in the bacon supply in England should be replaced by American bacon. Mr. Reek was confident, however, that adjustment would soon be made and the situation relieved.

Hog producers in the County of Kent labor under conditions different in some respects from those which prevail throughout the province generally. Corn forms a large part of the ration in Kent County, and the hogs produced and finished on corn are usually not of the best bacon type. Mr. Reek told his hearers that we must stick to the bacon hog, but he expressed the opinion that a compromise might be effected whereby a hog could be produced suitable at least for the domestic bacon trade. The meeting seemed to endorse the statement of one member present that the cross between a Duroc-Jersey sow and a Tamworth sire was the best that could be worked out. Mr. Reek traced the development of the bacon industry in Canada up to the present time, and showed how the English market had been invaded and, to a certain extent, conquered. At present Danish competition is, to a large extent, eliminated. Ireland's offerings have decreased by twenty-five per cent. The Minister of Agriculture in England has advised producers there not to grow hogs. Russia, Holland and Sweden are no longer factors to be considered seriously. In addition to all these elements which make the future look bright for Canada, France has been asking for our bacon, but it is a matter of credits with them.

It was also announced by the Assistant Commissioner that a movement was on foot to have all the weighing done at the stock yards by a Government official, and it was expected that in a couple of weeks the necessary regulations would be approved.

Co-operative Shipping.

Co-operative shipping of live stock was discussed by E. G. Gordon, of the Co-operation and Markets Branch, Ontario Department of Agriculture. Last year, he said, there were 300 cars of live stock shipped co-operatively to the Union Stock Yards, Toronto. The value of this offering would be in the neighborhood of a million dollars. Altogether there were sixty million dollars' worth of business done at the Union Stock Yards last year. In regard to actual shipping operations, Mr. Gordon advised that the farmers' clubs or organizations now extant appoint a live-stock committee of three men. It is also wise to have a manager in direct charge. When the cars are ready to move they should be consigned to the shipper himself at the Union Stock Yards and addressed in charge of some commission firm. The commission firm then takes charge, sells the stock, pays all charges and will either remit the cheque by mail or pay it to the manager if he is at the Yards when the transaction is completed. Mr. Gordon enumerated the charges in connection with shipping live stock as

follows: Freight, (the charges of course vary); unloading, \$1.00 per car; yarding, 25 cents for cattle, 6 cents for sheep, 6 cents for hogs, 10 cents for calves; feed (figures vary); selling charges, \$15 per car or \$8 for single decks; inspection charges, 50 cents for cows, one-half of one per cent. for pigs, and 20 cents for steers and heifers; insurance, 20 cents per car.

The speaker advised shipping and selling through some commission firm as these firms know the trade, know the business and are in a better position to obtain a good price than is a stranger. As examples of what has been done in co-operative shipping, Mr. Gordon cited one club in Grey County which has a membership of eighty-eight, and in four years it has shipped co-operatively \$850,000 worth of live stock. Another combination of clubs in Bruce County did \$133,000 worth of business last year. Others were mentioned as being particularly successful in co-operative shipping.

Beef production and the market outlook was handled in such a way by John Gardhouse, Weston, Ont., as to encourage the use of better sires in the improvement of our herds, which will be necessary if we are to establish and maintain an export trade.

H. G. Bell, Toronto, discussed soil improvement particularly in regard to sugar beets. Farm management, soils, co-operative marketing of wool and seeds were subjects treated by different speakers on the second day of the conference.

Barron Sale of Holsteins.

We give herewith a short report of the sale of registered Holstein-Friesian cattle held near Brantford, January 15, on the farm of J. G. Barron. The high price of the sale was \$300, paid by J. N. Moote, Canboro, for Netherland Mercena Houwtje. There were 26 head sold altogether for \$3,127.50, an average of \$120.29. Twenty females brought \$2,822.60, an average of \$141.13. Following is the list of individual sales for \$100 and over:

Females.

Brada Mercena Houwtje, H. L. Wood, Brantford.....	120
Brada Tensen 2nd, E. W. Tench, Niagara Falls.....	130
Molly Tensen Mercena, Chas. O. Peart, Hagersville.....	125
Queen Canary Segis, W. Strachan, Simcoe.....	160
Canary Houwtje of Cloverdell, W. M. Amy, Burford.....	190
Princess Segis Mercena, J. N. Moote, Canboro.....	100
Netherland Jewel Mercena, M. J. Brown, Norval.....	175
Netherland Mercena Houwtje, J. N. Moote.....	300
Elsie Netherland, E. Kenney, Waterford.....	170
Princess Segis Netherland, Anderson Laidlaw, Hagersville.....	210
Baroness Houwtje Texal, Chas. O. Peart.....	115
Rose Abbeker Schuiling, F. Kenney, Paris.....	205
Duchess Abbeker Posch, M. J. Brown.....	240
Viola Butterfly DeKol, J. L. Sager, Harrisburg.....	140
Lady Posch Creamelle, J. L. Sager.....	135

A Withdrawal of Restrictions.

A sweeping withdrawal of restriction has simplified matters considerably. Henceforth the Commissioner of Customs will issue a general license to shippers and importers covering all commodities except the foodstuffs detailed below and gold and silver, in place of the specific permit for each shipment which was in force until now. The foodstuffs which still require export permits from the Food Board are:

Wheat flour, farina, fresh milk, and cream, butter, cheese, condensed, evaporated and powdered milk, bran, shorts, middlings, pollard, gluten meal, brewers' and distillers' grains, cottonseed cake, meal and oil, calf meal, patent and proprietary cattle foods, eggs, sugars, syrups and molasses, sugar beets, clover seed, mill screenings, and screenings of grain, and canned salmon.

Export and import permits for wheat and oats must still be obtained from the Board of Grain Supervisors, Winnipeg.

Foodstuffs which still require import permits from the Food Board are:

Macaroni, vermicelli, spaghetti, wheat flour, candy and confectionery, cocoa and chocolate, prepared or manufactured, and sugars.

With the withdrawal of these restrictions, the War Trade Board practically ceases active work.

To Investigate European Markets.

A report is current that, as a result of a conference between Government and packers, a representative is going to Europe in order to straighten out the tangles in the meat situation and look after the movement of Canadian product. In this connection Dr. J. H. Grisdale, Acting Deputy Minister of Agriculture, and H. B. Thomson, Food Controller, have been mentioned, but at time of writing the choice has not been made definitely. It is possible that Mr. Arkell, the Live Stock Commissioner, will go himself and perhaps be accompanied by Mr. Thomson.

The corn market has been somewhat unsettled of late but it has been unmistakably on the decline.

Do not forget the Breeders' meetings next week and the conventions which follow.

Toronto, Montreal, Buffalo, and Other Leading Markets

Receipts and Market Tops

Dominion Department of Agriculture Live Stock Branch, Markets Intelligence Division

CATTLE						CALVES						
Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves			
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending		
Jan. 23	1918	Jan. 16	Jan. 23	1918	Jan. 16	Jan. 23	1918	Jan. 16	Jan. 23	1918		
Toronto (Union Stock Yards)	8,560	8,151	7,312	\$14.25	\$12.50	\$14.50	650	732	598	\$18.00	\$13.50	\$18.00
Montreal (Pt. St. Charles)	1,445	784	1,408	14.50	12.00	12.50	316	225	185	16.00	11.00	15.00
Montreal (East End)	1,573	945	1,863	14.50	12.00	12.50	146	271	259	16.00	11.00	15.00
Winnipeg	3,581	2,205	4,361	14.00	12.00	14.25	50	77	158	10.50	8.25	10.50
Calgary	3,215	1,359	1,157	14.00	11.00	14.50			62			
Edmonton	966	382	821	12.50	10.50	12.75	128		28			

HOGS						SHEEP						
Receipts			Top Price Selects			Receipts			Top Price Good Lambs			
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending		
Jan. 23	1918	Jan. 16	Jan. 23	1918	Jan. 16	Jan. 23	1918	Jan. 16	Jan. 23	1918		
Toronto (Union Stock Yards)	7,729	16,935	7,581	\$17.00	\$19.75	\$18.75	3,033	1,461	5,161	\$15.25	\$19.25	\$16.75
Montreal (Pt. St. Charles)	1,071	1,682	1,665	17.25	20.25	19.00	829	1,003	2,268	15.00	17.00	14.00
Montreal (East End)	824	1,170	2,077	17.25	20.25	19.00	1,340	1,135	1,435	15.00	17.00	14.00
Winnipeg	6,407	6,528	17,426	15.75	18.75	17.00	243	5	323	15.75	17.00	15.25
Calgary	1,916	809	3,223	14.25	19.00	16.25	377	684	1,804	12.50		13.00
Edmonton	482	1,543	1,382	14.25	18.75	16.00	378		498			

Market Comments.

Toronto (Union Stock Yards.)

There were indications during the week that farmers are becoming a trifle nervous regarding the prices that are likely to prevail during the next few months. Their anxiety was made manifest by exceptionally heavy shipments of cattle, six thousand head being offered on the Monday market, and consisting almost double the volume of stock offered on any January market at Toronto in previous years. Much of the stock was lacking in finish and might well have been held for two or three months longer. The result was that the supply exceeded the demand, while had the receipts been normal the market would undoubtedly have held steady. Buyers, however, refused to purchase except at a decline of about 50 cents per hundred, and only half of Mondays receipts were sold that day. The hold-overs with the addition of twenty-four hundred received during the remaining days of the week, were disposed of before the close on Thursday. It would seem good policy on the part of farmers to hold their stock from the market, until the trade has had an opportunity to readjust itself to the conditions that have recently developed on the European markets. American buyers as well as outside packers, were operating during the past week, and over twelve hundred head were shipped South, while one hundred head went out to Hull, Quebec and Montreal, Quebec. Only a few heavy cattle were on sale. Three steers averaging fifteen hundred pounds each and of prime quality, sold at \$16 per hundred; another load of similar weight changed hands at \$15.50, while several head were sold at \$15. Good steers of twelve hundred pounds each, brought \$14.50. Of steers weighing from ten hundred to twelve hundred pounds, five head of eleven hundred and seventy pounds average sold at \$14.50; twenty-three head averaging ten hundred and twenty pounds were weighed up at \$13.25; twenty four head averaging ten hundred and seventy pounds at \$13; sixteen head averaging ten hundred and eighty pounds at \$13.25, while numerous other sales were made from \$12.75 to \$13.25. Of steers and heifers under ten hundred pounds about the best sale of the week was that of thirteen head of nine hundred and eighty pounds at \$13; a load averaging nine hundred and fifty pounds sold at \$12.25, while numerous sales were made from \$11.75 to \$12.25 per hundred for the best quality within these weights. Cows and bulls suffered in sympathy with other grades of cattle, and while a few sales of choice fat cows and bulls were made from \$10.50 to \$10.75 and \$11 per hundred, most of the sales were below \$10.25, while common quality stock realized from \$6.50 to \$7.50. Canners and cutters showed a decline of 50 cents per hundred, canners selling from \$5.50 to \$5.75 and cutters from \$5.75 to \$6.25. There was little demand for stockers and feeders; prices ranged from \$9 to \$11.50 per hundred. Calf receipts were heavier and prices ruled lower. Choice veal calves were selling from \$16 to \$17 per hundred.

The lamb market was off another dollar during the week and few bids were made above \$14.25 on the closing market of the

TORONTO (Union Stock Yards)					MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price	
STEERS heavy finished	16	\$13.87	\$13.25-\$13.50	\$15.00					
STEERS good	401	13.23	12.75-13.50	14.25	60	\$13.00	\$12.50-\$14.50	\$14.50	
STEERS 1,000-1,200 common	24	11.23	10.75-12.25	12.50					
STEERS good	1,734	12.25	12.00-12.75	12.75	82	11.00	10.50-12.00	13.00	
STEERS 700-1,000 common	446	10.44	9.75-11.00	11.00	143	9.00	8.00-10.00	10.25	
HEIFERS good	1,446	12.41	12.00-13.00	13.25	14	10.25	10.00-11.00	11.50	
HEIFERS fair	299	10.73	10.00-11.25	11.25	37	8.75	8.50-9.25	9.50	
HEIFERS common	57	9.47	8.75-10.00	10.00	126	7.25	6.00-8.00	8.00	
COWS good	762	9.51	9.00-10.25	10.50	31	9.75	9.00-10.50	11.00	
COWS common	1,316	7.31	7.00-8.50	8.50	213	7.50	7.00-8.50	8.75	
BULLS good	195	9.52	9.00-10.25	11.00	24	9.25	9.00-10.00	11.00	
BULLS common	113	7.28	7.00-8.00	9.00	237	7.00	6.50-8.00	8.50	
CANNERS & CUTTERS	923	5.75	5.50-6.25	6.25	427	5.75	5.25-6.25	6.25	
OXEN					30	9.00	8.00-10.00	10.00	
CALVES veal	637	14.68	14.00-17.00	18.00	183	14.00	12.00-15.00	16.00	
CALVES grass	13	7.00	6.00-8.00	8.00	132	5.25	5.00-	6.00	
STOCKERS good	158	9.64	8.75-10.00	10.50					
STOCKERS 450-800 fair	307	8.92	7.50-9.25	9.00					
FEEDERS good	285	11.09	10.25-11.50	11.50					
FEEDERS 800-1,000 fair	78	10.50	10.00-10.75	10.75					
HOGS selects	7,250	16.98	17.00-	17.00	871	17.15	16.75-17.25	17.25	
HOGS (fed and watered) heavies	81	16.67	16.00-17.00	17.00	15	16.15	15.75-16.25	16.25	
HOGS lights	206	15.08	14.75-16.00	16.00	157	15.15	14.75-15.25	15.25	
HOGS sows	184	14.04	13.75-15.00	15.00	25	14.15	13.75-14.25	14.25	
HOGS stags	7	12.39	12.00-12.75	13.00	3				
LAMBS good	2,576	14.83	13.75-15.25	15.25	196	14.10	14.00-	15.00	
LAMBS common	136	12.07	11.00-13.00	13.00	491	13.00	12.50-13.50	13.50	
SHEEP heavy	60	9.26	8.00-9.75	9.75					
SHEEP light	171	9.91	9.00-10.50	10.50	73	9.50	9.00-10.00	10.00	
SHEEP common	100	6.19	5.00-8.00	8.00	69	8.50	8.00-9.00	9.00	

week. One deck only sold at \$15. Heavy coarse lambs were weighed up from \$12 to \$13 per hundred. Several hundred lambs were left unsold at the close of the week's trading.

There was little change in the hog situation and while there was talk of further cuts being made, these did not materialize, and quotations closed at \$17 per hundred, for fed and watered hogs, although an odd sale or two were made at \$17.25. Fortunately, farmers are holding back their hogs and this will help to remedy the present situation. One deck of hogs was shipped to the Buffalo market on speculation.

Of the disposition from the Yards for the week ending January 16, Canadian packing houses purchased 294 calves, 5,336 butcher cattle, 662 hogs, and 4,005 sheep and lambs. Local butchers purchased 156 calves, 550 butcher cattle, 92 hogs and 1,313 sheep and lambs. Canadian shipments were made up of 46 calves, 221 stockers, 22 feeders and 14 lambs. Shipments to United States points consisted of 5 calves, 436 butcher cattle, 18 stockers and 396 feeders.

The total receipts from January 1 to January 16, inclusive, were: 13,704 cattle, 1,318 calves, 18,707 hogs and 11,116 sheep; compared with 8,673 cattle, 985 calves, 17,816 hogs and 3,976 sheep,

received during the corresponding period of 1918.

Montreal.

Owing to the present uncertain condition of the export market for meats, the market generally was unsettled. While sales recorded showed declines ranging from 25 to 75 cents per hundred on butcher cattle, these sales do not accurately indicate the condition of trading. Many cattle were unsold and packers were not inclined to buy even at lower prices. The cost to drovers of carrying the stock at the yards is more severe than if the stock were cleared out at reduced prices. Some very fair cattle were offered. Of these the best loads sold at \$14.50 per hundred. Ten head averaging eleven hundred and fifty pounds sold at \$13.50, while prices ranged down to \$10 and \$10.50, for steers weighing nine hundred pounds and better. A number of heifers and steers weighing from eight hundred to nine hundred pounds, and in fair flesh, sold from \$9 to \$9.25. Canners and canner bulls were from 25 to 75 cents per hundred lower compared with sales during the previous week. A certain class of medium to common butcher cattle was left unsold at the close of the market. Good bulls sold up to \$11 per hundred. Veal calves were in good de-

mand up to \$16 per hundred, while grass calves sold down to \$5.

Prices on sheep and lambs showed an inclination to become firmer, a few lambs selling at \$15 per hundred, and the best sheep at \$10.

Hogs sold on the Monday market at \$17.75 per hundred, off cars. The majority of the sales at that price, however were made contracted for previously. The market closed at \$17, off cars, and sales were hard to make. Only one packing firm was operating during the week.

PT. ST. CHARLES.—Of the disposition from the Yards for the week ending January 16, Canadian packers purchased 155 calves, 383 canners and cutters, 197 bulls, 731 butcher cattle, 1,665 hogs and 976 lambs. Canadian shipments were made up of 6 milch cows. Shipments to United States points consisted of 30 calves, 75 butcher cattle, and 1,292 lambs.

The total receipts from January 1 to January 16, inclusive, were: 2,423 cattle, 437 calves, 3,362 hogs and 3,034 sheep, compared with 1,601 cattle, 406 calves, 2,925 hogs and 2,707 sheep received during the corresponding period of 1918.

EAST END.—Of the disposition from the Yards for the week ending January 16, Canadian packers purchased 259 calves, 1,609 butcher cattle, 1,435 hogs

THE ROYAL BANK OF CANADA

Capital Authorized - - \$ 25,000,000
Capital paid up - - - 14,000,000
Reserve Funds - - - 15,000,000
Total Assets - - - 393,800,000

HEAD OFFICE: MONTREAL

Branches throughout every Province
of the Dominion of Canada.

ACCOUNTS OF FARMERS INVITED.
SALE NOTES COLLECTED

SAVINGS
DEPARTMENT
AT ALL BRANCHES

and 558 lambs. Shipments to United States points consisted of 219 butcher cattle, and 1,519 lambs.

The total receipts from January 1 to January 16, inclusive, were: 2,881 cattle, 355 calves, 2,135 hogs, and 2,389 sheep; compared with 1,747 cattle, 307 calves, 1,777 hogs, and 2,502, sheep, received during the corresponding period of 1918.

Buffalo.

Cattle.—Cattle prices went off a full seventy-five cents to a dollar here last week, the result of very soft and unfavorable weather for the beef trade and for the further reason that prices of late weeks have been exceptionally high, killers maintaining that they were making no money in the beef. Practically all classes of cattle were effected, though at the decline killers cleaned up shipping steers in good season. There were around forty cars or better of Canadians, best steers from the Dominion selling around \$15.25, some light, handy kinds around \$13. Butchering heifers especially were slow sale, outlet for these being very limited. Medium and common stuff showed equally as heavy a decline as the better grades. Stocker and feeders trade was low, most of this stuff going for kill at lower prices. Milk cows and springers were in liberal supply and sold generally lower. At the close of the week quite a few cattle went over unsold. Buffalo is to have its Fat Stock Show on Wednesday and Thursday, January 29 and 30. Quite a few choice cattle are looked for. Receipts for the week totalled 6,250 head, as against 6,025 for the previous week and 4,350 for the corresponding week a year ago. Quotations:

Shipping Steers—Natives—Choice to prime, \$16.75 to \$17.50; fair to good, \$15.50 to \$16; plain and medium, \$11.25 to \$12; coarse and common, \$10 to \$11. Shipping Steers—Canadians—Best heavy, \$14.75 to \$15.25; fair to good, \$13 to \$14.50; medium weight, \$12 to \$12.75; common and plain, \$10.50 to \$10.75.

Butchering Steers—Choice heavy, \$15.50 to \$16; fair to good, \$13.75 to \$14.50; best handy, \$14.50 to \$15.25; fair to good, \$13 to \$14; light and common, \$10 to \$11.50; yearlings, choice to prime, \$15 to \$16; medium to good, \$13 to \$14.50.

Cows and Heifers.—Best heavy heifers, \$11.50 to \$12.50; fair to good, \$10.50 to \$11; good butchering heifers, \$11.50 to \$12; fair butchering heifers, \$9.50 to \$10.50; light common, \$8 to \$9; very fancy fat cows, \$11 to \$11.50; best heavy fat cows \$9.00 to \$10.00; good butchering cows, \$8.25 to \$8.50; medium to fair, \$7.50 to \$8; cutters, \$6.50 to \$6.75; canners, \$5.75 to \$6.

Bulls.—Best heavy, \$10 to \$11; good butchering, \$10 to \$10.50; sausage, \$7.50 to \$8; light bulls, \$6.50 to \$7.50.

Stockers and Feeders.—Best feeders, \$10.50 to \$11; common to fair, \$8 to \$9.50; best stockers, \$8.75 to \$9.25; fair to good, \$8.25 to \$8.75; common, \$5 to \$7.

Milchers and Springers—Good to best (small lots), \$100 to \$135; in carloads, \$90 to \$100; medium to fair, (small lots) \$80 to \$85; in carloads, \$70 to \$75; common, \$50 to \$55.

Hogs.—Better-weight grades got good action all of last week, while underweights, especially pigs, were very dull. Heavy hogs were scarce and they commanded a

Protection and Profit



THE MERCHANTS BANK OF CANADA

Head Office: Montreal. Established 1864.

with its 102 Branches in Ontario, 32 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, and 8 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

When money is in a Savings Account in The Merchants Bank, it is absolutely safe from loss, as far as you are concerned. All the time it is here, it is earning interest—so that the bank actually pays you to let it take care of your money. Don't carry unneeded sums on your person or hide them at home. Protect them against loss, theft and fire by opening a savings account.

premium. Monday four decks on this order made \$18.25 but the general market for packers' kinds was \$18. Tuesday top was \$18.35, with bulk selling at \$18.10, Wednesday only a few loads were here and bulk reached \$18.50, Thursday prices were forty to fifty cents lower and Friday's trade was about the same as Thursday, several decks bringing \$18.10, with bulk selling at \$18. Lights and pigs showed a wide range all week, selling anywhere from \$18.50 to \$16.50, according to weight and quality and light skip pigs went as low as \$11. Good throwout roughs sold largely at \$15.50 and stags ranged from \$13 down. The past week's receipts were 21,600 head, being against 28,372 head for the week before and 37,400 head for the same week a year ago.

Sheep and Lambs.—As a result of a demoralized meat trade, market on lambs last week was very dull, with prices generally on the decline. Demand was light and several loads had to be carried over unsold from day to day. Monday the best lambs brought \$17, Tuesday's top was \$16.75, Wednesday one load made \$16.80, Thursday the range on the most desirable kinds was from \$16.40 to \$16.70 and Friday the market was a little stronger, best bringing from \$16.65 to \$16.85. Cull lambs ranged mostly from \$15 down. Sheep were scarce and trade on these was held steady all week. Wethers were quoted from \$11.50 to \$12 and ewes ranged from \$10.50 down. For the past week receipts were 14,600 head, being against 27,668 head for the week before and 13,200 head for the same week a year ago.

Calves.—Market was very unsatisfactory all of last week. Receipts were liberal and owing to the light demand trade was very dull. The first half of the week showed tops selling at \$17, and Thursday and Friday the bulk had to take \$16.50. General range on culls was from \$13 down and grassy kinds sold from \$6 to \$7. The past week's receipts were 3,100 head, as against 3,116 head for the week previous and 2,300 head for the same week a year ago.

Toronto Produce.

Live-stock receipts at Union Stock Yards, West Toronto, on Monday, January 27, consisted of 124 cars, 2,436 cattle, 97 calves, 1,124 hogs, 260 sheep and lambs. Slow, uneven market. Choice steers strong; tops, \$15 to \$16.50 per hundred for straight loads. All other butchers' cattle slow; few head sold; general quality very poor. Lambs, \$13.75 to \$14.25. Sheep and calves steady. Hogs, \$16.50 to \$17, fed and watered.

Breadstuffs.

Wheat.—Ontario f.o.b. shipping points, (according to freights). No. 1 winter, per car lot, \$2.14 to \$2.22; No. 2 winter, per car lot, \$2.11 to \$2.19; No. 3 winter, per car lot, \$2.07 to \$2.15; No. 1 spring, per car lot, \$2.09 to \$2.17; No. 2 spring, per car lot, \$2.06 to \$2.14; No. 3 spring, per car lot, \$2.02 to \$2.10. Manitoba wheat, (in store, Fort William, not including war tax)—No. 1 northern, \$2.21½; No. 2 northern, \$2.21½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.11½.

Oats.—Manitoba (in store, Fort William), No. 2 C.W., 68c.; No. 3 C.W., 65c.; extra No. 1 feed, 65c.; No. 1 feed, 63½c.

Oats.—Ontario, (new crop), according to freights outside; No. 2 white, 68c. to 71c.; No. 3 white, 67c. to 70c.

Corn.—American, (track, Toronto, Jan. shipment) No. 3 yellow, \$1.60; No. 4 yellow, \$1.55.

Barley (according to freights outside)—malting, 78c. to 83c.

Buckwheat (according to freights outside)—No. 2, \$1.15.

Flour—Ontario (prompt shipment). War quality, \$10; Montreal and Toronto. Manitoba flour, Toronto, war quality, \$11.35.

Rye (according to freights outside)—No. 2, \$1.40, nominal.

Peas (according to freights outside)—No. 2, \$2.

Hay and Millfeed.

Hay.—No. 1, per ton, car lots, \$23 to \$24; mixed, per ton, \$21 to \$22.

Straw.—Car lots, per ton, \$10 to \$11.

Bran.—Per ton, \$37.25; shorts, per ton, \$42.25.

Hides and Wool.

Price delivered, Toronto:
City Hides.—City butcher hides, green, flat, 18c.; calf skins, green, flat, 30c.; veal kip, 20c.; horse hides, city take off, \$6 to \$7; sheep, \$3 to \$4.

Country Markets.—Beef hides, flat, cured, 18c. to 20c.; green, 16c. to 17c.; deacon or bob calf, \$2 to \$2.75; horse hides, country take off, No. 1, 6 to \$7; No. 2, \$5 to \$6; No. 1 sheep skins, 2.50 to \$4. Horse hair, farmer's stock, \$28.

Tallow.—City rendered, solids, in barrels, 14c. to 16c.; country solids in barrels, No. 1, 14c. to 16c.; cakes, No. 1, 18c. to 19c.

Wool.—Unwashed fleece wool, as to quality, fine, 50c. to 55c.; washed wool, fine, 75c. to 80c.

Country Produce.

Butter.—Butter prices remained stationary on the wholesales, selling as follows. Creamery, fresh-made lb. squares, 56c. to 57c. per lb.; creamery cut solids, 54c. to 55c. per lb.; dairy, 45c. to 50c. per pound.

Oleomargarine kept stationary in price, selling at 33c. to 34c. per lb.

Eggs.—Both new-laid and cold-storage eggs declined on the wholesales during the past week, selling as follows: New laid, 63c. per doz.; cold-storage, 56c. to 57c.; cold-storage selects, 60c. per dozen.

Cheese.—New, 28c. per lb.; twins, 28½c. per lb.

Honey.—Honey prices kept firm on the wholesales, being quoted as follows: 5, 10 and 60-lb. pails, 28c. per lb.; comb sections, 30c. to 40c. each.

Poultry.—Prices being paid to producer, five weight: Chickens, 23c. to 25c. per lb.; fowl under 4 lbs., 20c. per lb.; fowl, 4 lbs. and over, 25c. to 27c. per lb.; ducks, 25c. per lb.; geese, 18c. per lb.; turkeys, 55c. per lb.

Wholesale Fruits and Vegetables.

Apples continued to have a good demand at practically stationary prices; Ontarios selling at \$2 to \$3.50 per box, and \$1 to \$8 per bbl.

Bananas sold at 6c. per lb.

Grapfruit kept firm at unchanged prices; Floridas selling at \$5 to \$6 per case; Cuban at \$5 to \$5.50 per case.

Lemons declined, ranging from \$1.25 to \$5 per case.

Oranges, eased slightly—California Navels selling at \$1 to \$6.50 per case; a very few going at \$7 per case in the early part of the week.

Rhubarb.—Hot-house rhubarb came in in large quantities and is due to a decline in price—now selling at \$1.35 to \$1.50 per dozen bunches.

The Molsons Bank

IS ALWAYS GLAD TO ASSIST FARMERS

in any legitimate financial way to make their farms more productive.



State your requirements to our local manager and he will be glad to advise and assist you.

Tomatoes.—Hot-house tomatoes continue to have a very light supply with a fairly active demand; No. 1's selling at 40c. per lb., and poor No. 2's at 20c. per lb. Beets are rather scarce and firm at \$1 per bag.

Cabbage kept stationary at \$1.50 to \$1.75 per bbl.

Carrots did not advance as expected, still selling at 75c. to 85c. per bag.

Onions have been an exceedingly slow sale at \$1.50 to \$2 per 100 lbs., and \$1 to \$1.25 per 75 lbs.

Potatoes.—Ontarios again declined, selling at \$1.25 to \$1.40 per bag.

Turnips sold fairly well at 60c. to 75c. per bag.

Montreal.

Horses.—Dealers declare that the market for horses was never duller than it is at the present time, although the heavy roads in this district resulting from the continued open weather, have caused some enquiry during the past few days. Prices were: Heavy draft, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, weighing 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$125 to \$175 each; culls, \$50 to \$75 each; fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs.—In consequence of the break in the price of live hogs, the market for dressed hogs was much easier, and prices were in the vicinity of 18c. to 20c. per lb., or from 3c. to 5c. below the recent high, and about 3c. down from last week.

Poultry.—The Ministry of Food will not make further purchases of frozen poultry, but will assist shipments on private account, and grant frozen space. Prices held firm, with choice turkeys selling at 42c. to 43c.; fancy chickens, 32c. to 33c.; and ordinary stock down to 24c. Fowl, 34c. to 28c.; geese, 25c. to 26c.; and ducks, 32c. to 34c.

Potatoes.—The market held very steady. The weather was favorable for shipment and arrivals were in good condition. Green Mountains were quoted at \$1.75 to \$1.80 and Quebec whites at \$1.35 to \$1.45 per 90 lbs., car lots, ex-track. Quebec turnips were bought freely at \$1.25 per 70 lbs., ex-store.

Eggs.—It looks a little as though a decline in the price of eggs might take place at almost any time, but no importations have yet taken place from the U. S., and new-laid eggs were to be had at 70c. to 72c.; while strictly new-laid were 65c. to 68c., these prices being below those of the week previous. Cold storage selects were 56c. to 57c., and No. 1's 53c. to 54c.

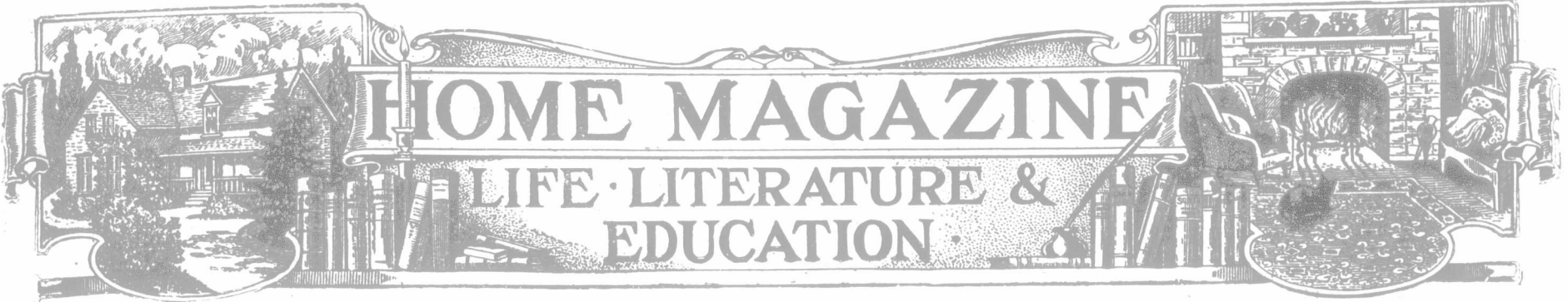
Butter.—Creamery butter was in good demand, and stocks were not large, so that prices held firm, with finest creamery quoted at 53c. to 54c.; and fine at 52c. to 52½c. Dairies ranged from 41c. to 46c. per lb.

Cheese.—There was no change in price. Commission quoted 25c. per lb. for No. 1, 24½c. for No. 2 and 24c. for No. 3.

Grain.—The market for oats was easier with car lots of No. 2 Canadian Western selling at 85c., No. 3 at 82c.; extra No. 1 feed at 82c.; No. 1 feed, 80c.; No. 2 feed, 76½c.; Ontario No. 2 white, 79c.; and No. 3 white at 78c., ex-store. American No. 3 yellow corn was \$1.57 and No. 4, \$1.53. No. 2 buckwheat, \$1.45; Ontario No. 3 extra barley, \$1.05; No. 3, \$1.04, and Manitoba sample grades at 94c.

Flour.—The situation in the flour market was rather mixed owing to the

Continued on page 182.



At the Peace Table.

BY EDGAR A. GUEST.

Who shall sit at the table, then, when the terms of peace are made—
 The wisest men of the troubled lands in their silver and gold brocade?
 Yes, they shall gather in solemn state to speak for each living race,
 But who shall speak for the unseen dead that shall come to the council place?

Thou who see them not and you hear them not, they shall sit at the table, too;
 They shall throng the room where the peace is made and know what it is you do;
 The innocent dead from the sea shall rise to stand at the wise man's side,
 And over his shoulder a boy shall look—a boy that was crucified.

You may guard the doors of that council hall with barriers strong and stout,
 But the dead unbidden shall enter there, and never you'll shut them out.
 And the man that died in the open boat, and the babes that suffered worse,
 Shall sit at the table when peace is made by the side of a martyred nurse.

You may see them not, but, they'll all be there; when they speak you may fail to hear;
 You may think that you're making your pacts alone, but their spirits will hover near;
 And whatever the terms of the peace you make with the tyrant whose hands are red,
 You must please not only the living here, but must satisfy your dead.

—From "Poems."

The Peace Conference.

THE greatest event the world ever knew is taking place in the *Salle de la Paix*, in Versailles, that wonderful suburb of Paris, during these winter days. It is a quiet scene, yet surely a very microcosm, pulsating with anticipation, keyed to tenseness with the great moment of the occasion. For in that beautiful and historic place sit seventy-two men, representing twenty-seven nations and every hemisphere of the earth—British, French, Americans, Italians, Czechoslovaks, Japanese, Chinese, even to men from Siam, Hayti and Uruguay—assemble to solve the greatest problems affecting human welfare that have ever come up for the consideration of the world.

The work these men are finding, too, is all constructive. One rejoices to think of that, and then one remembers that it required the awful destruction of the War to make way for this great work of construction that is to-day under way. It is necessary to clear away the brambles before the wall is built, and it seemed necessary for the blood of heroic men to be spilled in attacking the thorny brambles of autocracy, and privilege, and the military ideal, before this great meeting for the welfare of humanity could take place.

Marshal Foch is there. Premier Clemenceau is in the Chair. David Lloyd-George, with his wonderful personality and his vast schemes for humanity—and most of all, for his beloved little England—is one of the most dominant forces. President

Wilson, too, with his high ideals. . . . Italy's great men, Orlando and Sonnino. . . . And upon the other side the deputation from Germany, led by Prince Lichnowsky, whose "Revelations" did so much to open the eyes of the German people to the evil offices of the military clique at Berlin. The other German representatives are: Count Brockdorff-Rantzau, Foreign Minister; and Karl Kautsky, the greatest exponent of theoretical socialism in Germany.—It is not the militarists—the Kaiser, Ludendorff, von Tirpitz and the rest—that the Allies are meeting at the Conference.

After the opening preliminaries on Jan. 18th, the first question taken up (upon which the delegates are still deliberating at this time of writing), was that concerning Russia and her Bolsheviks. There will be many others ranging all the way from the "self-determination" pleas of small nations to the broad, sweeping problems concerning the whole. A knotty problem may be to straighten out the dispute between Italy and the Jugo Slavs regarding territory along the Adriatic. The story of Germany will be heard. Ireland will demand consideration. A deputation of educated colored men from the southern United States will, it is said, bespeak for the colored race everywhere a return to Africa, and self-government. The Jews will demand recognition. China and Japan will ask for an open door in America. There will be much reckoning over division of territory and reparation and indemnities made necessary as a direct result of the War.

But, far transcending all these will be the central question of the formation of a League of Nations. If this be not brought about, and in such a way that it will work out in practice, then the Conference will have failed; the lives and limbs, and health and prospects of countless men will have been offered in vain, those who sleep beneath the poppies may well cry out from their graves that the torch which they flung has been quenched in defeat. It was the plea that they were to wage war upon War itself, to fight the last war, that inspired the best of

of a speedier going-forward, henceforth, than this plodding planet has heretofore seen.—The Conference will have justified itself.

Hope's Quiet Hour.

Safety in Danger.

Peter therefore was kept in prison: but prayer was made without ceasing of the church unto God for him. And when Herod would have brought him forth, the same night Peter was sleeping between two soldiers, bound with two chains: and the keepers before the door kept the prison.—Acts 12: 5, 6.

Bunyan called prayer a "shield" to the soul. He also called it a "weapon"—the weapon of "All-Prayer." In this story of St. Peter's escape from prison we can see how he was protected by the shield of prayer and delivered by the weapon of prayer—the intercession of his friends.

Let us look at the four pictures, drawn with a few strokes of the pen and yet lifelike and vivid, which are preserved in this chapter.—Acts 12.

First is the picture of peace in the hour of danger. The king, who cared nothing for righteousness but loved popularity, had killed one apostle, and—when he saw the people were pleased—made up his mind to kill another. St. Peter was seized and delivered for safe keeping into the hands of 16 soldiers. Four of these were always on guard. He was chained safely to two of them and two others guarded the doors of his cell and of the prison. Next day he was to be exhibited before the mob, and exposed to their insults and violence, and then he was to be beheaded. The prospect was a terrible one, and might well have terrified the man who—like Herod—liked to be appreciated and admired by his fellows. Was it likely that he could sleep, when the time of shame and death was so near? The last watch of the night was set.

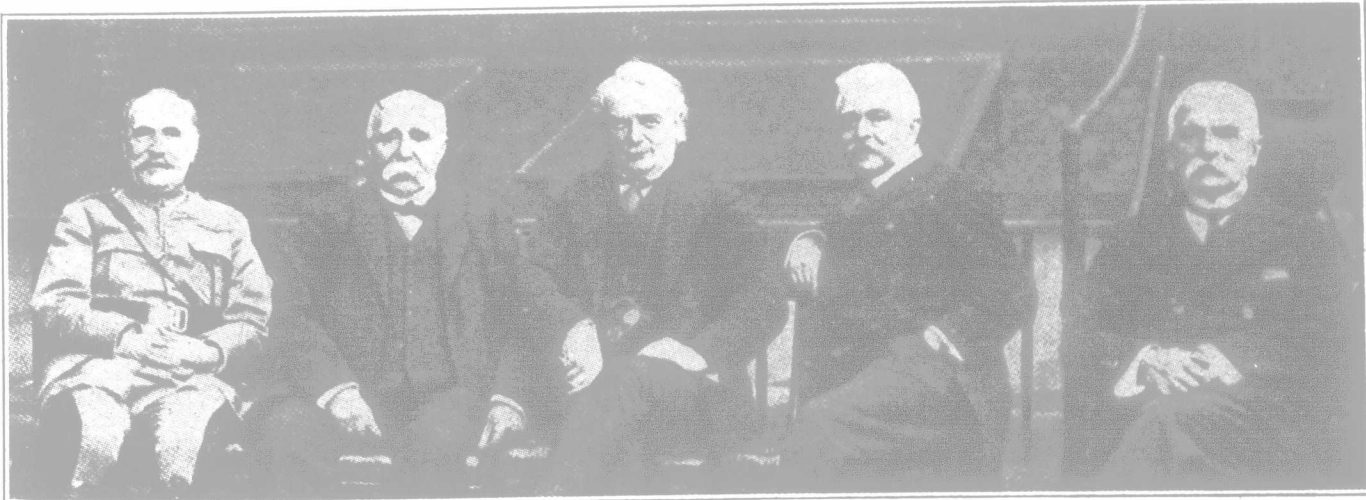
and struggling church—but so was the loss of the Son of Thunder. The visible presence of Christ, their Master, had seemed to be a vital necessity to the little band of disciples; yet—when that presence was removed—the church not only endured the loss but went forward swiftly from strength to strength, leaning on her unseen Lord.

Christ could deliver him, but—if that should not be His will—it was all right. St. Peter commended his spirit to God who gave it, and then slept as peacefully as a baby in its father's arms. Why shouldn't he sleep? Between him and that cold stone floor were the upholding everlasting Arms, and his heart was warm with the love-pressure of his Father's embrace.

No escape seemed possible, "but"—note that little word "but"—"prayer was made without ceasing of the church unto God for him." It was a contest between the power of Herod and the Christian Church—the Church which had gone forth against a giant with the weapon of prayer uplifted. The Church, following an invisible Leader who went forth conquering and to conquer. Herod thought he reigned as a king, but it is true in all ages that "The Lord God omnipotent reigneth."

Now look at the second picture. There is a city street, quiet and deserted, for it is the hour when men sleep most soundly. There stands the freed apostle, dazed with the bewildering discovery that his strange dream of deliverance has turned out to be no dream but a solid fact. With uplifted face he stands and returns thanks to his Master Christ. The apostle had again been tested, and this time his faith has shone brightly in the darkness. He has proved his readiness to die for his King—as our soldiers have done! and now he is called to live for Him instead. Of course he has been perfectly safe all the time, for he has not been in the hand of Herod but in the hand of God.

Now look at the third picture. In a large room of the same city there is a prayer meeting going on. All through the night, while the prisoner sleeps, the prayers of his friends ascend continuously. There is faith in their hearts—else they would give up praying in despair—and yet that faith is weak, for they do not expect a swift and definite answer. Listen! There is someone knocking at the door. A young girl goes to find out whether friend or foe stands there, and comes back with the startling news that the prisoner, for whose liberty they have been praying is outside the door. "Thou art mad!" they exclaim, in amazement. The weapon of All-Prayer has been mightier than their expectations. God has fulfilled His promise: "It shall come to pass, that before they call, I will answer; and while they are yet speaking, I will hear." That promise is still our hope; and yet—how often it happens that when His answer to our prayer comes, swiftly and evidently, we are amazed. We don't really expect the prayers to prevail. Perhaps He lets us see the answer sometimes, so that we may feel sure of the prevailing power of intercession at other times, when the answer is hidden from our sight. Then thank God because He has answered your prayers for the young men who laid down their lives for the liberty of the world, as confidently as you thank Him because He has answered your prayers for those who are coming west as swiftly as ships can



Some of the Delegates to the Peace Conference.

From left to right: Marshal Foch; Premier Clemenceau, of France; Premier Lloyd George; Premier Orlando and Foreign Minister Sonnino, of Italy.

the throngs upon throngs of young men who hastened to join the colors, and which sustained them through those weary years of mud, and loneliness, and suffering, and death. It remains for the Conference to set the seal upon their effort and proclaim it a glorious victory.

If this be done, the Millennium, it is true, will not yet be here. Privilege will still hold vantage-points; selfishness and graft do not die easily; the world cannot be changed overnight.—But—a few great evils will have fallen into disrepute; humanity will, at least, be facing the right way; there will be hope

Soon it would be day, and day meant torture and death.

Look at the picture. The dark cell is lighted by an angel's presence. The man who seems to be doomed is peacefully sleeping, lying on the hard floor with his hands chained to his guards. Though death is shadowing him his heart is resting in perfect peace in the heart of his unseen Lord. The Lord can deliver him, even at the last hour, but he has no expectation that He will. There was no interference when a brother-apostle, St. James, was beheaded, why should an exception be made in his favor. His death would be a terrible loss to the weak

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carry them home. Your intercession has prevailed as certainly in the one case as in the other—though God has written His answer in cipher, which you will be able to read plainly some day.

Now look at the fourth picture of our chapter. There is Herod, dressed in silver robes, which flash in blinding splendor under the rays of the morning sun. Proudly he sits on his throne, accepting complacently the idolatrous homage of the applauding crowds. "It is the voice of a god, and not of a man!" they shout—knowing well how they can please the foolish king with the false flattery which he accepted as real.

Suddenly his smiles of gratification change to a look of agony. An angel of judgment, standing invisibly beside him, has smitten him because he has arrogantly grasped the honor and glory which belong to God. Silver robes and court flattery have small power to give peace to a man who is dying of a horrible and agonizing disease, who must leave the world he loves and render account for the life so shamefully wasted. St. Peter had been perfectly safe in the midst of danger; but Herod suddenly discovers that he is in awful danger, though he had felt perfectly secure in enjoying the pomp and glitter of earthly majesty.

In these days,—when God has shown the strength of His arm, scattered the proud in the imagination of their hearts, and hath put down the mighty from their seats,—there is little need to write out the moral of the four pictures painted by St. Luke in Acts 12. But, if you want the moral expressed in words, you may discover them in the song of Hannah—1 Sam. 2:9. "He will keep the feet of His saints, and the wicked shall be silent in darkness; for by strength shall no man prevail. The adversaries of the LORD shall be broken to pieces; out of heaven shall He thunder upon them: the LORD shall judge the ends of the earth."

Those who are faithful soldiers and servants of the King of the nations may enjoy peace in the face of threatening danger—danger threatening them or theirs—while those who are living for themselves, and trampling the rights of others under their iron-shod feet, will suddenly discover that the flowery road of selfish ease leads to a frightful precipice.

Death—physical death—can be faced smilingly. Our soldiers have shown us that! But, when the great day of the wrath of the gentle and loving Friend of the oppressed shall at last come, the power of earthly greatness shall sink in utter helplessness.

When Christ opened the fifth seal of the Book of Mystery St. John heard martyred saints demand justice. The men who had shed their blood were still dwelling in haughty security on the earth. Then the sixth seal was opened and tyrants fled in fear before the wrath of the Lamb. Then "the kings of the earth, and the great men, and the rich men, and the chief captains, and the mighty men, hid themselves in the dens and in the rocks." They were trying—trying in vain—to hide from the face of Him Who always sitteth on the Throne, ruling all the kingdoms of earth.

In that day of wrath and mourning the loyal friends of the King will be perfectly safe—as safe as St. Peter was that dark night.

"I cannot tell what danger may betide, 'Thou need'st not fear, for I am by thy side'."

DORA FARNCOMB.

Gifts for the Needy.

"A Friend", in Essex sent a dollar (which has gone to help a poor old couple) and "well-wisher," Rockwood, Ont., sent two dollars, which brought good cheer to a family where the father is ill and there are five little girls to feed and clothe.

Thank you!

DORA FARNCOMB, 6 West Ave., Toronto.

Mrs. Jones had never been able to solve the servant problem, and her constant troubles were well known to her friends. One of them asked her the other day how many servants she had.

"Two, as usual," she replied, somewhat wearily. "One coming and the other going."

The Fashions.

Note.—We cannot possibly supply patterns of designs clipped from other papers. If you order a number of patterns and one or two arrive before the rest, do not be alarmed. The division is sometimes made unavoidably.

When sending your orders for patterns to us, please cut out the picture of the pattern you want and enclose it. Also cut out the following blank, fill it in carefully and address to "Pattern Department, Farmer's Advocate and Home Magazine," London, Ont.

Name.....
Post Office.....
County.....
Province.....
Bust measure (if for waist or one-piece dress).....
Waist measure (if for skirt).....
Age (if for child).....
Number of pattern.....
Date of issue in which pattern appeared.....

Allow a week or ten days in which to receive pattern.

2423—Ladies' Dress. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 1/2 yards of 44-inch material. The skirt measures about 1 1/8 yard at the foot. Price, 10 cents.



2718—Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 will require 4 yards of 27 inch material. Price 10 cents.

2714—Boys' Suit. Cut in 4 sizes: 4, 5, 6, and 7 years. Size 7 requires 3 3/8 yards of 44 inch material. Price 10 cents.

2712—A Comfortable Negligee. Cut in 4 sizes: Small, 32-34; Medium 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium requires 6 3/8 yards of 36 inch material. Price 10 cents.

2720—Ladies' House Dress. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6 1/4 yards of 36 inch material. Width at lower edge is 2 1/4 yards. Price 10 cents.

2708—Girls' Dress. Cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 3 3/4 yards of 44 inch material. Price 10 cents.

2726—Girl's Dress with Guimpe. Cut in 5 sizes: 4, 6, 8, 10 and 12 years. Size 8 requires 2 1/4 yards of 27 inch material for the guimpe, and 2 3/4 yards for the dress. Price 10 cents.

2558—Ladies' Apron and Cap. Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42, and Extra Large, 44-46 inches bust measure. Size Medium requires 3 1/4 yards of 36-inch material for the apron, and 1/8 yard for the cap. Price, 10 cents.

2728—Smart Negligee. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 4 yards of 36 inch material. Price, 10 cents.



2731-2527—Ladies' Costume. Waist 2731 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2527 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. Eight yards of 44 inch material will be required for the entire dress. Width of skirt at lower edge is 2 yards. TWO separate patterns 10 cents FOR EACH pattern.

2338—Girls' Dress. Cut in 4 sizes: 2, 4, 6 and 8 years. Size 6 requires 3 yards of 36-inch material. Price, 10 cents.

2709—Ladies' Dress. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6 1/2 yards of 36 inch material. The skirt measures about 2 1/4 yards at the foot. Price, 10 cents.

2735—A Set of Three Attractive Dress Accessories. Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. It will require for No. 1, 1 1/2 yards, for No. 2, 1 yard, and for No. 3, 1 1/2 yard of 36 inch material. Price 10 cents.

2733—Misses' Dress. Cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 3 3/8 yards of 44 inch material. The dress measures about 2 yards at the foot. Price 10 cents.

2573—Girls' Dress. Cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 3 3/4 yards of 36-inch material. Price, 10 cents.

2713—Ladies' Combination. Cut in 4 sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. Size Medium will require 2 3/8 yards of 36 inch material. Price, 10 cents.

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.]

Pet Economies.

THE talk had turned upon "pet economies." "Mine," said Miss Euston, "is making over clothes."

"Then do tell us all about it!" exclaimed Mrs. Verner. "If there is one thing in which I seem to be especially helpless it is just that. I never seem to know what to do with old clothes. They seem to look so—so helpless and disreputable."

Miss Euston smiled. "Well, in the first place," she said, "I always have anything that looks 'possible' at all, cleaned. That makes it look more promising, and sends my ambition up. Usually I do the cleaning myself, but occasionally find it better to trust the work to a professional cleaner. This year, the fashions lend themselves particularly well to making over old dresses because they make it easy to combine two materials.—You know that old blue dress I had? And that old blue and brown plaid one?—Well, I just wish you could see the pretty gown I have from them! I made them into a tunic dress, with the plaid for a rather tight skirt and the sleeves;" the tunic and cuffs are of the blue.

"But I shouldn't have had the blue and plaid," said Mrs. Verner. "I never do have things that go together."

"I usually have," returned Miss Euston, "because I always keep to one color for a stand-by, and add to it only the colors that go with it. If I hadn't had the plaid, I should have bought enough harmonizing material for the sleeves and skirt. It pays to buy a little new material sometimes.

"Besides," she went on, "I always save the buttons from old dresses, and very seldom have to buy new ones. My button-bag usually supplies some of the right color. Indeed I never throw away a scrap of lace or anything. I have a lace box, a ribbon box, a box for hat-trimmings, and a big box for ends and patches, all in the attic. You'd wonder how a use turns up, sooner or later, for everything. Even scraps of lace two inches long come in for patching holes in the lace of underwear or curtains. Longer bits may be worked into little front trimmings for under-waists. Sometimes I stitch the lace on in a pattern and cut out the goods beneath.

Costume. Sizes: 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100. Bust measure. Size of 36 inch material. Length 2 1/2 yards at waist. Two pieces FOR EACH.

2, 4, 6 and 8 years. Size of 36-inch material.

34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100. Bust measure. Size of 36 inch material. Length about 2 1/2 yards at waist.

Three Attractive. Small, 32-34; Medium, 34-36; and Extra Large, 44-46. Bust measure. It will take 2 1/2 yards, for No. 2, 1 1/2 yard of 36 inch material.

18 and 20 years. Size of 44 inch material. Bust measure about 2 1/2 yards. Price 10 cents.

6, 8 and 10 years. Size of 36-inch material. Bust measure. Price 10 cents.

Nook

Write on this and other cards, your name and address. Send name is also printed. (3) When forwarded to anyone, please be ready to be sent on this Department for year.]

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turned upon "pet" Miss Euston, "is about it!" exclaimed "is one thing in especially helpless seem to know clothes. They seem and disreputable."

place," she said, "thing that looks like. That makes it and sends my I do the cleaning ly find it better professional cleaner. lend themselves making over old make it easy to -You know that and that old blue Well, I just wish ty gown I have hem into a tunic or a rather tight ne tunic and cuffs

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med Miss Euston, p to one color d to it only the If I hadn't had bought enough for the sleeves buy a little new

"I always save esses, and very new ones. My ies some of the I never throw ything. I have a box for hat-x for ends and You'd wonder er or later, for s of lace two patching holes ar or curtains. rked into little -waists. Some- n in a pattern ath.

"Speaking of under-waists, all my old shirtwaists, that are of thick enough material, end up by being made into corset-covers. The sheer ones end their days as collars and cuffs. When hem-stitched and given a touch of embroidery, these sets are just as good as new ones that cost a dollar and a half, or more. Sometimes I trim them with three rows of very narrow "Woolworth's" lace. The prettiest set I have is made in that way, but the material used is the net underlining of an old silk dress.

"I never buy a new petticoat. Old skirts look just as well when shortened and trimmed with a frill of chintz or edge of lace crocheted from heavy colored cotton or wool in a pretty shade. My 'newest' one is made of that old castor-colored poplin, you remember? I scalloped the skirt all around the bottom, quite deeply, bound the edges, and filled up between with crochet. Some girls crochet all around the scallops in 'button-hole' stitch, but I think the binding makes a neater finish."

"But what do you do with all your old cotton summer dresses?" asked Mrs. Verner. "You can't make them all into petticoats and underwaists."

Miss Euston smiled again. "Why," she said, "usually I dye them with Dyola and give them a new lease of life as dresses. My prettiest blue dress last summer was an old white one, dyed, and finished with a big white collar and cuffs made from an old pique skirt. An old linen one I dyed light brown, and at present part of it serves as a small table cover edged with heavy cotton lace dyed the same color. The rest is being made up this winter into a hooked cotton rug—blue and brown, with a touch of Indian red—for our living room. You know the inside curtains, there, are factory-cotton dyed 'old blue,' and the walls are brownish with a border of brown and blue and Indian red. The grate is dull red brick, and, you will remember, there are a copper jar and an ancient blue and white plate on the mantel, and some Indian red cushions on the couch. I'm afraid we run to blue"—laughingly—"in our house, but blue is 'our color,' you know."

Mrs. Verner nodded. "Yes," she said, "people should consider that in furnishing. Now, there's Mrs. Davies.—She's dark as midnight, and blue doesn't suit her at all, yet her whole drawing-room is done in cream and Alice blue! She's really handsome but it makes her look a fright. With a background of greens and browns and yellows, she'd be positively—stunning. She's picturesque-looking enough, too, to attempt something even more daring, with some of the oriental effects and dashes of black one sees, nowadays.—But no,—there she is looming up against pale blue and cream. . . . Now, tell me, what do you do with old stockings?"

"That's easy," replied Miss Euston. "Some of the silk ones are made into sleevelets to be worn while doing kitchen work.—I forgot to say that some of the old cotton skirts are dyed and made into kitchen aprons, and finally end their days as dust-cloths and rugs. Old silk stockings can be knitted into covers for cushions, and old cashmere ones hooked into rugs. But never mix wool and cotton in a rug. All heavy old rags, that will not hook, very well, can be made into braided rugs—or patchwork quilts. . . . But now, my dear, I really must go. Come over to-morrow afternoon and we'll finish the subject. I'll have Mrs. Carey over, too. Her hobby is economy in cookery, you know.—Now, good-bye," and she was off.

Mrs. Verner, watching her through the window, said to herself. "A perfect little genius! I do believe that coat is her old one, turned and fixed up with a new velvet collar, cuffs and belt. And she made her hat herself! Yet she has the best 'style' of any girl about here!—A perfect little genius!"

(To be continued.)

A Correction.

If you will substitute the word "muster" for "minister" in the article on Dr. Cody, page 133 last week's issue, the sentence will make sense. There was a misprint. Also on Col. 1, p. 137, for "Russia" substitute "Prussia."

Coming to Canada.

By the way, Philip Gibbs is coming to Canada and will lecture. If he should

happen to speak in your locality, make a point of hearing him. He was infinitely the best of the war correspondents, and his books "Soul of the War," "Battle of the Somme," etc., are great literature as well as faithful reports of the War. He was, during the War, special correspondent for the London "Daily Chronicle," and at times his despatches to that paper cost \$1,000 in telegraphic expenses. Reports from him appeared also in the Toronto "Globe" and New York "Times."—J.

To Clean Kid Gloves.

For Miss R. S., Waterloo Co., Ont. You can clean white kid gloves very easily with gasoline and soap, rinsing afterwards in clear gasoline, but be sure to do the work in a room where there is neither fire nor lights, and throw the windows open afterwards. Gasoline is very inflammable even the fumes of it, and you don't want to run the risk of a dangerous accident. You can use it in perfect safety, however, if you keep it absolutely away from fires or lights. Colored kid gloves may be cleaned very well by putting them on the hand and rubbing with a rag dipped in milk and then rubbed a little on Ivory or toilet soap. Clean a little at a time, rinsing off with another rag moistened with clean milk.

Sponge Taffee. Cream Puffs.

For Mrs. G. C. F., Nippissing, Ontario. I wonder if "Seaford Fudge" is anything like the sponge taffee you want to make. The recipe is: Take 2 cups brown sugar and boil over the fire until it spins a thread from a fork. You may add 3/8 cup grated chocolate if you like before boiling. Take from the fire and beat into it the stiffly beaten white of an egg. Whip until rather stiff, then turn into a greased pan and cut into squares. A friend tells me that a sort of sponge taffee is made by boiling together brown sugar and a pinch of salt; finally add a little soda, stir up and pour into greased pans. Watch carefully lest it burns.

To make "Cream Puffs," put 1 cup boiling water in a pan on the stove and add to it at once 1/2 cup butter. When boiling hard plump in a cupful of flour and stir rapidly until done then take off the stove at once. When cool rub in, one at a time, 3 eggs. No soda or baking powder is added. Drop the batter from a spoon in rough heaps on a buttered pan leaving room between for expansion, and bake in a rather hot oven for about 25 minutes. There will be a hole in the middle of each when done until nicely browned. Let cool then make a little opening at the side of each and fill with whipped cream, sweetened slightly and flavored with vanilla. If preferred boiled custard, nicely flavored, may be used instead of the whipped cream.

The Scrap Bag.

Hanging Out Small Articles.

In cold weather, after washing small articles such as handkerchiefs and collars, pin them to towels or other larger articles then carry out to the line and put the towels, etc., on with clothespins. This will greatly prevent cold fingers, also prolong the life of the handkerchiefs, etc., which are likely, when put on the line in the ordinary way, to become frozen and tear when one is taking them off.

An "Easy" Medicine.

Some people find it almost impossible to take salts, castor oil, or any of the ordinary purgatives. Agar is a laxative about which they should know. It is a Japanese sea-weed, and in Japan is known as "agar-agar." It may be bought by the ounce at any good drug-store and looks similar, almost, to prepared breakfast foods, being in whitish flakes. A tablespoonful, once a day, added to porridge, prepared cereals, soup, etc., will be found to be a sufficient laxative. The agar is almost tasteless, and its presence in food will be quite unknown, unless, possibly, one is told before, when one's imagination, may get to work.

Occupation for an Idle Moment.—"Charley, dear," said young Mrs. Torkins, "have you a minute to spare?"

"Yes." "Well, I wish you would tell me exactly what is meant by a 'League of Nations' and 'freedom of the seas'."—Washington Star.

Our Serial Story

The Forging of the Pikes.

A Romance Based on the Rebellion of 1837.

Serial rights secured by the Farmer's Advocate and Home Magazine.

CHAPTEK X.—Concluded.

"A regular lily," he observed, patting the side of the canoe as we swung out a little towards the deeper water of the stream.

"Not that I couldn't have taken her up the river myself," he went on, "if I had been put to it. I've learned to handle a paddle, and could manage finely if it weren't for the accursed stones in the bottom. But, you see, there had to be someone to bring back the canoe."

With that he promptly forgot all about me for a time, but looked out to the darkening shore, and, once or twice, took a note-book from his pocket and scribbled something, though he could not have seen what he was writing. And as we went on to the woods, where the water becomes very smooth, the ground being level, as we plunged into it, the way which lay before us appeared like a channel of darkness, with inky water below, and looming black ramparts at either side whose serrated tops pierced a darkly luminous sky. So still was everything that nothing was to be heard but the dipping of the paddle and perhaps it was the silence that recalled Selwyn.

"Ugh." Talk about the Styx!" he said. "Boy, it seems to me that you are Charon, so I must be the duffer that's being paddled across. For heaven's sake do something to break this death!"—but there was a lilt of levity in his tone.

"What can I do, sir?" I said. "Nothing," he replied, gaily, "except keep the canoe off the confounded stones."

"It's safe enough here," I said. "Beyond at the rapids, we'll have to be more careful, but it will be lighter there."

"So there's nothing to be afraid of here but the dark," he laughed.

Then presently he began to sing, very softly and in a voice richer than any I have ever heard, the "Canadian Boat Song," following it through to the end, and keeping the rhythm with my paddle, which was here, in almost still water, dipping slowly:

"Faintly as tolls the evening chime,
Our voices keep tune and our oars keep time,
Soon as the woods on the shore look dim,
We'll sing at Sainte Anne's our parting hymn.
Row, brothers, row, the stream runs fast
The rapids are near, and the daylight's past."

"Do you know that song?" he asked. "Yes, sir," I replied. "It was written on the Ottawa. Sometimes I wish Moore had written one for the canoe, too."

"So do I," he assented. "Just another time when the poet forgot to grab the golden opportunity.—How do you like the alliteration there?—But hold! Do you know this? It's appropriate in this spot of echoing gloom, or glooming echo, I know not which," reciting then:

"How sweet the answer Echo makes
To music at night,
When, roused by lute or horn, she wakes,
And far away, o'er lawns and lakes,
Goes answering light.

"Yet Love hath echoes truer far,
And far more sweet,
Than e'er beneath the moonlight's star,
Of horn, or lute, or soft guitar,
The songs repeat.

"'Tis when the sigh is quite sincere—
And only then—
The sigh that's breathed for one to hear
Is by that one, that only dear,
Breathed back again."

When he had ended I said nothing, for there was a quality of soul music in his rendering, and a timbre in his voice that effected me strangely.

"Do you know that?" he repeated. "We have Moore's poems at home, sir," I replied. (And I confess that at this moment, as I write, I have the

book before me, having taken it down, so that I might copy the poem.)

"Were you ever in love?" he asked, then, very lightly.

"If I had been," I replied, "I would not likely discuss it with a passing stranger."

At that he laughed, making me feel uncomfortable, and very young, although this man could not be so very many years older than I.

"I see, boy," he said. "You are in the serious stage yet. After a while you'll get over that, unless this dark forest gets too far into your marrow. Don't take life too seriously, boy. It doesn't pay. Take all the good things that come your way; cull the roses and pass by the rue. That's my philosophy."

"But how would the world go on," I queried, "if that were everyone's philosophy?"

He waited, for a moment, while only the dip, dip of the paddle broke the silence.

"You were saying?" he resumed after a little time, as though he had been thinking of something else.—"Oh, yes—Well, take those folk who are always trying to push the Universe,—what do they accomplish, after all, except to get themselves and other people into an infernal muddle? Take those asses, the proletariat, in the French Revolution, for instance.—Do you know about the French Revolution, boy?"

"I have heard of it," said I, with some sarcasm, to which he seemed quite deaf.

"What a hell-pot they churned up," he continued, yawning as though the whole question were scarcely worth considering, "And who thanked them for it? Even the poets went back on them in the end and sang their disappointment."

"But such outbreaks may help the next generation," I said.

"Next generation be—" he began, then ended in a laugh. "Oh, I see you've got it, boy's—the blood and sacrifice theory—the soul of the Wycliffes and Riddleys and Luthers and Cobdens and Brights, half of whom you may not have heard of. Perhaps most men get it, for a while, if they haven't been brought up on too much luxury—or have had a just taste enough of it to tantalize."

In the darkness I could hear him yawn again; then he went on, almost sleepily. "Take my word for it, boy, you'll fare as well in the end, and perhaps other people, too, if you go ahead, mind your own affairs—and pluck all the roses you come to. It's the infernal meddling with other people's business that makes all the trouble in the world."

To that there seemed some reason. "But when other people meddle with your business?" I propounded, on second thought.

"Why, shoot 'em and be done with it," he replied, flippantly. "Look after your own affairs, but don't shoulder all the troubles of the world. Let it look after its own. It won't thank you."

"But—" I began. "For heaven's sake this is too solemn," he interrupted. "I'm afraid I wasn't born with the soul of a martyr, boy, and so, problems don't interest me greatly. Teach the world to look only on beauty and it will forget the rest."

"That depends on what one considers beauty, perhaps," I ventured.

But he laughed me away from further argument.

"Come, come," he said, "let's not spoil the night. Let's talk of love, and music, and poetry. Ever heard this?—

"I love thee so, that, maugre all thy pride,
Nor wit, nor reason, can my passion hide.
Do not extort thy reasons from this clause,
For that I woo, thou therefore hast no cause,
But, rather, reason thus with reason fetter,—
Love sought is good, but given unsought is better."

But I knew he was no longer addressing me, nor expecting me to answer, and so I sank into silence, nor did he show interest again until we had entered the rapids, when he sat up and watched me, never for a moment afraid, but only keen to watch the game with the water and the stones, which I could by no means have played had I not been so familiar with the spot.

—I meanwhile, in spite of myself,

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contrasting this man and his philosophy of life with such as The Schoolmaster, and Mackenzie—of those that I have seen. With his creed of not meddling in other folk's affairs I could give full agreement, but the question remained as to what one must do if one's rights, or one's neighbor's were set upon, and the old story came to me of someone who once said "Am I my brother's keeper?" . . . Yet I had to admit a fascination about the man, in his voice and manner, and the very grace of him as he sat there in the darkness. Aye, and in a certain generosity of him, too, for when we had come out of the rapids and I was gaining my breath after the hard paddling, having been compelled at last to resort to the pole, for recent rains have swollen the stream somewhat, he leaned towards me and said:

"By Jove, boy, I'd give ten years of my life to have such muscle and wind as yours!"

"Perhaps you haven't practised so much, sir," said I.

"But the length of you! And the breadth of your shoulders!" he said, "How tall are you?"

"Six feet one in my socks," said I.

"And how much do you weigh?"

"About thirteen stone."

"Yet you are only a lad," he said.

"The 'bush', as you call it, has given you a good deal, hasn't it?"

"A great deal, sir," I acquiesced.

"And you will settle down and become a part of it," he went on, so that I scarcely knew what he meant. "You will marry and live in a little gray house among the trees. Now what about that little tavern girl on the road beyond there?—Barbara, is it that they call her? What about her?"

"I have nothing to say about her," I replied, shortly. "We have come to the Gulch. Where will you get out?"

"Oh the Gulch, is it?" he said. An in-

fernal looking spot, too, to which you have brought me, at the end of the Styx. Looks like some of the Plutonian shades to which Dante and Virgil descended. You saw to it that you paddled me far enough from the fair Beatrice, didn't you?—But, boy, I've no grudge against you. After all 'twas my own doing, or, rather, that clown, Downs.—What ho, there, Downs! What ho!" and looking over his shoulder, he gave a shrill whistle which was answered from a little distance. "Well," he said, turning back to me, all his air of jaunty levity returned to him. "So you have nothing to say about the little girl over at the tavern? Think that over lad. She's a little posy—no, by Jove, a regular Pocahontas! Think it over, lad. Pluck the roses, while you may; that's my advice."

Now I confess that at this my choler arose, albeit without any very definite

reason other than that I could not bear the name of Barry on this man's lips, and yet less the light air with which he spoke. But I kept my thought to myself, and, a moment later, perceiving the gleam of a fire between the trees and on the water, made for it and drew up the canoe to the shore.

Selwyn sprang out as lightly as he had come in, then taking a coin from his pocket tossed it into the canoe. "There," he said, "I'm much obliged to you."

Now I have no compunction about taking money for honest work, when I have bargained with a man, but the thought of being paid by Howard Selwyn, with whom I had not bargained at that, and in such fashion, must have stuck in my crop. At all events, no sooner had the coin struck the bottom than I felt the hot blood in my face and the next second the bit of metal was jingling on the slab of rock at his feet.

"I do not take money from you,

—Howard Selwyn," I said, and raised my paddle to push out.

But he was quicker than I, and before I could collect myself had gripped the canoe and was holding it to the shore as though in a vice of iron.

"By George!" he said, peering at me through the darkness. "Now I know you're the young callant who refused to water my horse some weeks ago. I've been trying to place you all the way up."

"I'll be thankful to you if you will let me go," I said.

But he did not release the canoe. Instead he gave a low whistle, and then laughed.

"It's all right, old chap," he said, and somehow I knew that he thought me jealous over Barry, and was glad of the darkness that covered the guilty reddening of my face, for it shamed me to know that I could be jealous over such trifling excuse as he had given me.

"See here," he said, "you hate me, don't you?"

"No, sir."

"Well—you don't like me, to say the least."

"Perhaps."

He laughed again, and drew the canoe along until he was very close to me.

"Now," he said, "have you any reason for hating me?"

To which I could only reply that I had not, except that I was not accustomed to being ordered to do things by strangers, nor to having money thrown me like a bone to a dog.

"I know," he said, when I had finished, "I should not have done that. But, on my oath I did it of habit. In the length and breadth of this bush I have received hospitality and had my pay refused, but I have not yet found a youth—and you are only a lad—who spurned a gold piece even though tossed to him. I meant well. But, honestly, boy I knew you of finer clay. If I had not, how could I have talked with you as I did on the way up? How could I have recited to you 'The Echo'?—How could I speak to you as I am now? Now, lad, make it up with me, won't you?"

Never have I heard a voice so persuasive. Even as he spoke he drew me, and so I laid my hand upon the one which he extended to me and did not realize my grip until he exclaimed with the pain of it, then laughed.

"Hold off, 'Macduff!'" he cried. "Now you see that's how I gather some of my roses. I make friends of enemies. Will you come up and have a smoke?—No?—Then good-night, and thank you, and remember me to pretty Barbara.

She will tell you I stayed at the tavern last night."

As I pushed out into the stream I heard his "man", evidently, approaching, for Selwyn's voice sounded over the water.

"Hello, there, Downs. Got the horses fixed all right?"

To which came a less musical one: "I ave, sir. They're hall shod han' ready, sir. Han' the camp's hall ready, too, sir, so you can myke yourself at 'ome roight awy, sir."

So now I have given the grip of confidence to Howard Selwyn, though why I did so I cannot tell, for I swear I do not like him—yet like him in the same breath, I must confess.

One thing, however, I have learned: Since I have experienced it myself I have less cause to be displeased with little Barry's fascination by him.

And so he stayed at the tavern last night.

—Well, I have given him the grip of confidence.

(to be continued.)

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Mrs. Wm. L. Johnson also sends \$1 for

this Institution, bringing the total up to \$39.75. The Salvation Army is taking care of great numbers of soldiers' children orphaned by the war.

Current Events

The Ontario Legislature will assemble Feb. 25.

Sunday, Feb. 16, has been fixed by the Dominion Government as a day of National intercession for the Peace Conference.

The women of France are demanding representation on the League of Nations committee.

Portuguese warships are bombarding Oporto, which is in the hands of the Monarchists, who have started an attempt to put ex-King Manuel on the throne of Portugal.

China, in her splendid effort to get rid of the opium curse, has begun the burning of opium stores in Shanghai. On the first day \$2,000,000 worth was destroyed.

The Sinn Feiners, whose leader is "Eamonn" de Valera, met at the old Mansion House in Dublin on Jan. 21, and proclaimed the establishment of an Irish Republic. About half the Sinn Feiners elected to the British Parliament participated; the rest are in English prisons because of former rebellion. Marshal French, Governor of Ireland, gave no order for interference with the meetings, whose sessions were opened in the Irish language. The matter has, however, brought to the fore again in England the old question of Home Rule for Ireland.

The result of the elections in Germany has been to clear the air very materially and show exactly where the people stand. Ebert and Scheidemann remain in power and the "Reds" have been snowed under; Germany, in short, will have neither Kaiserism nor Bolshevism. Subject to slight revision the returns were as follows: Majority Socialists, 166; Christian People's Party (or Centrists), 93; Democrat Party, 75; National Socialists, 37; so called "wild" parties, 5. A result, rather unexpected outside of Germany, was the return of 34 women as members of the National Assembly. The first assembly of the National Assembly shall be convoked at Weimar, in the former Court Theatre, on Feb. 6, the object of meeting at Weimar being to remove the Assembly, as far as possible, from the influence of the old Prussian spirit at Berlin. Berlin will, however, be retained as the Seat of Government, and later, when stability is assured, the real Parliament, to which the Assembly at Weimar is just as preliminary, will be held in the Capital.

The peasants about Petrograd are now in such rebellion as threatens to overturn the Bolshevik's Government, and Trotsky is reported to be in flight and removing the headquarters of Government to Nijni Novgorod. The peasants' revolt has come from the attempt of the Bolshevik Government to fix the prices of farm products in the interests of the towns people, who make up the Bolsheviks. Estonian troops, also, have been fighting the Bolsheviks, and on Jan. 22 occupied Narva, 81 miles from Petrograd. In the meantime Admiral Kolchak continues to build up his Government at Omsk, Siberia, and is steadily securing adherents. A decision of the Peace Conference at Paris, concerning Russia, recognizes the right of the Russian people to settle their own affairs, and proposes that on Feb. 15 representatives of all the organized bodies in Russia meet representatives of the Allies at Princes' Islands in the Sea of Marmora, near Constantinople, to discuss questions concerning Russia and her relations with other powers. In the meantime the struggle for a sane democratic Government goes on in Poland also, where Paderewski, the great pianist, who has come to the top as statesman besides, is working out a scheme of Government on moderate and stable lines. It is probable that the great Polish estates will all be expropriated

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Little Willie had been cut off with one helping of pie.

"Well, my little man," asked the minister, to cheer him up, "What are you going to be when you're a man?"

Willie looked mournfully at the minister's second piece of pie. "A minister," said he.—(Original.)

Maloney Jr.—The teacher told us about breathing oxygen into our lungs and breathing carbonic acid gas out.

Mrs. Maloney—Shure 'tis all roight for ye young people to learn thim things but o'ive been breathing air both ways too long to change.—Puck.

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Blights the Soul.—"Here is a preacher who announces that the automobile is a menace to religion."
"Maybe the poor fellow bought a second-hand car."—*Charlotte Observer.*

and given over to people who will use and develop the land.

Note:—Since the above was written a definite step has been taken at the Peace Conference. On Jan. 25 President Wilson moved and Premier Lloyd George seconded a motion favoring the adoption of a League of Nations. Mr. Wilson declared that "the fortunes of the world are now in the hands of the plain people," and that "the war has swept away those old foundations by which small coteries have used mankind as pawns in the game." The motion was adopted and Committees were subsequently chosen to work out a plan that can be put into practice.

A Farm Woman's Advice.

What can a woman do on the farm to help? All women cannot go to the fields and take a man's place, but there are a great many who can help in the barn, take over the chores and let the men have every hour for field work as soon as spring work starts. To do this you need to start now, get accustomed to the work. To wait until you are needed and then start all that extra work will soon discourage one. Even if you know how to do the work it will be hard, the work in the house will be at a standstill, and you will need all your nerve. I would advise a gradual falling in line, the only way to successfully master the situation. It takes backbone but it can and should be done on a great many farms; if not a great many cows will be disposed of on the small farms, yes and pigs and chickens. Chores require to be well looked to if there is to be any profit, with the expensive feed of to-day. The farmer who has no boys of his own is at a loss to get help; it is either sell or the women meet the situation. One man can only do so much even in 16 hours. He can not drive a team, hoe, and milk cows at the same time. The women in England are doing all kinds of farm work and it looks as if it must be done the same here, not that the women did not do it here—I know women who loaded every load of hay and grain on a one-hundred-acre farm, but not many could do that; it takes more strength than they possess, but we can all get gradually used to harder work. We who have always cared for a garden might extend our work and take over the potato or root crop. Some might try onions or beans. One should know what the soil is best adapted for and be sure that it is in proper shape to produce. There may be failures even after all the knowledge we possess has been called to meet the situation. The weather conditions may be hard to meet. The excessive rains during the past two planting seasons have been the cause of many failures of potatoes; beans and corn have been almost universal failures in some sections. Don't let us undertake too much, but what we do, do well. One half the ground well looked after would often have produced better results, and results are what we are after no matter what work we undertake.

Now just a word as to the clothes we wear doing the work. We see the English women have adopted the men's style of dress and why not we? No woman can hoe all day with comfort in corsets, high heels, etc., so it is up to us to adjust our clothing to our own comfort, save our selves unnecessary washing and ironing. I have read that in France all the meals are served on tables covered with white oilcloth, the laundrymen having gone to the war. I suppose the women have no time to wash and iron. One can buy many materials that do not require ironing. In buying our summer clothes we might save many an hour over the ironing board if we kept this in mind. Yes and let us do all our sewing up now, then clean house before spring opens up, so we can give all our time to the all important campaign, "Produce More". Let us be business women too, we can just as well know if we grow an acre of roots or potatoes or a 1/4-acre of onions or whatever we conclude to do as our share, what the cost is. We can find out from the men the cost of preparing the soil. We will buy the seed or if we have it will know its value. Now keep your time; if you can do as much work in an hour as a man you are entitled to a man's pay. Some can but get an hour or two a day, others might give a day or two a week better, but there is always a time when time means money. Then is the time to buckle in and forget all

else. With some crops just a day or two means loss or gain. After the critical stage is past you can adjust your hours. In case some will not understand what is meant by the critical time: if it's potatoes, the spraying; if onions, the weeding; if roots, the thinning; if it is chickens we want to know what they cost. If it is cows figure up the feed. Keep account of the proceeds, if sold or used; the cow must have the credit however disposed. I know it is a lot of bother, but I know of what I am telling you to do. I know it can and has been done. I have done the deed myself, yes and more, weighed every cow's milk, figured it up the end of every month, and at the end of the year. It gives a change of work, gives you change of thought. This we can do while we rest. Some think it is the one who puts in most hours at manual labor that will serve the country best; but I think not. He who "makes two blades of grass grow where before only one grew" is the one who best serves. Oxford Co., Ont. YOURS FOR SUCCESS.

Cookery for Winter

Artichoke Soup.—Scrape and boil about 2 lbs. artichokes. Boil in salted water until done, then put through a sieve. Take a quart of good milk and boil in it 1 tablespoon whole black peppers, 6 cloves a blade or two of mace, and an onion. When the milk is well flavored strain it. Put on the stove again and thicken with a large tablespoonful of butter and a tablespoonful of flour rubbed together. When cooked add the artichoke pulp, let boil up once, stir in a little cream and serve with bits of hot buttered toast. This soup is nourishing and delicious, and may well form the chief dish at supper.

Celery Toast.—Cut crisp pieces of celery into pieces about 2 inches long, then shred fine and lay in ice-cold water for 2 hours. Butter pieces of toast, cover with the celery and pour over it whipped cream seasoned with salt. Dust a very little cayenne or paprika over and serve at once.

Graham Flour Nut Bread.—Two cups white flour, 2 cups Graham flour, 1 egg, 1 teaspoon salt, 1 cup chopped nuts, 1 1/2 cups milk, 4 level teaspoons baking-powder, 1 cup molasses or sugar. Sift the flours and baking-powder and salt together; add the nuts, beaten egg, molasses and milk. Mix well and turn into a buttered tin. Let rise 20 minutes, then bake slowly for 1 hour. Use a loaf-tin for baking in.

Creamed Carrots.—Wash, scrape and boil the carrots until tender in salted water. Turn off the water, slice the carrots in the saucepan, add a lump of butter rolled in flour and cover with boiling milk. Stir until the flour cooks and serve hot, with meat, for dinner.

Potato and Nut Loaf.—One cup hot, mashed potatoes, a cup chopped nuts, 1 cup breadcrumbs, 2 eggs, milk, butter. Put the nuts in a basin, add the potatoes, a little salt and pepper, the beaten eggs, breadcrumbs and enough milk to form a stiff paste. Make into a loaf, lay on a buttered tin, put some bits of butter over the top and bake in a hot oven until brown. When putting the loaf in to bake pour a cupful of hot water into the pan, also a tablespoonful of butter, and use this for basting. When the loaf is taken out on to a hot platter, thicken the gravy in the pan slightly and pour around the loaf.

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"The more care given me, the more and better milk I can and will produce. I want to do it because it is my life's work.
"Please remember, dear master, I must work twenty-four hours each day that I can produce milk, both night and morning. In order to produce the maximum efficiency, I must work under favorable conditions.
"I must have good food from rich pastures.
"I must have pure water and I must have plenty of fresh air. I must not be compelled to stand out in the rain or in the boiling hot sun.
"Please do not swear at me and do not strike me.
"I like to be petted often.
"Kind words also will help make me happy and contented."

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Not too late, yet not too soon,
We trotted out the seed-drill and we filled it up with beans,
Mixed them with some fertilizer
Hoping thus to knock the Kaiser
For the Food Board told us daily we are fighting by these means.

So for days and days together,
In all kinds of wind and weather,
The seed-drill fought for Britain in a patriotic way
And as we trudged beside
We the horrid Hun defied
For Increased Production surely was one way to win the day.

Now those beans are up by acres
And they made the Berlin Fakirs
Wish all good Canadian farmers at the bottom of the sea
For they helped the war to win
Eaten straight or in the tin,
So we bow in salutation to the beans that are to be.

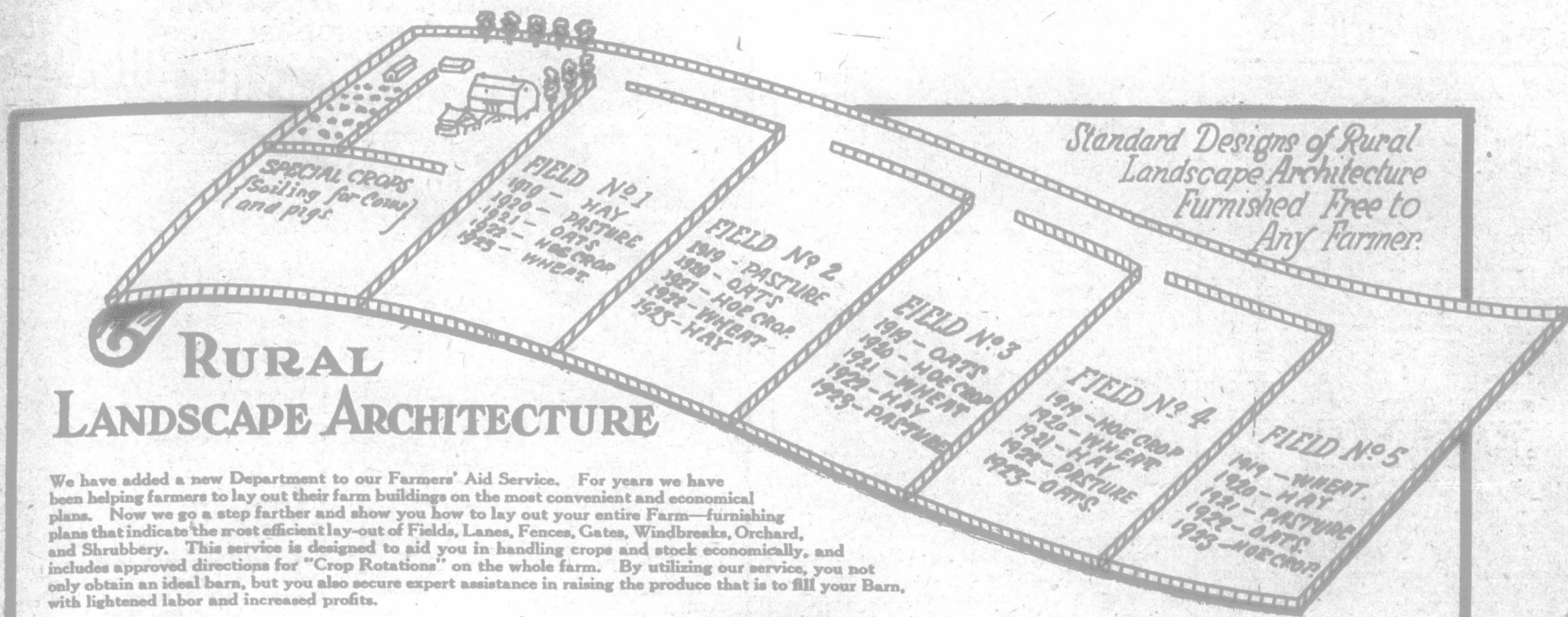
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RURAL LANDSCAPE ARCHITECTURE

We have added a new Department to our Farmers' Aid Service. For years we have been helping farmers to lay out their farm buildings on the most convenient and economical plans. Now we go a step farther and show you how to lay out your entire farm—furnishing plans that indicate the most efficient lay-out of Fields, Lanes, Fences, Gates, Windbreaks, Orchard, and Shrubbery. This service is designed to aid you in handling crops and stock economically, and includes approved directions for "Crop Rotations" on the whole farm. By utilizing our service, you not only obtain an ideal barn, but you also secure expert assistance in raising the produce that is to fill your Barn, with lightened labor and increased profits.

Standard Designs of Rural Landscape Architecture
 Furnished Free to Any Farmer.



ALL THE FARM BUILDINGS FOR A 100 ACRE FARM FOR \$ 2258

IMPLEMENT HOUSE

This building is framed, marked and ready to erect. A ready-made building—fire-proof, strong and tight. Safe against any storm. Read what is said of it by one farmer who recently bought one:

"The Ready-made Storehouse which I bought from you last Summer is all you claimed. I am perfectly satisfied with it in every way."

H. A. WATSON,
 Snelgrove, Ont.
 Feb. 9, 1917.

Could any recommendation be stronger than this letter expressing the satisfaction a Mount Pleasant man feels over the job we gave him? We have hundreds of such testimonials on file:

Dear Sirs:—
 Mr. Rutherford finished the Barn on Saturday July 6th, and I am well satisfied with the job. I am proud of the Barn.
 July 9, 1918. GARNET SHIELDS

PRESTON STEEL TRUSS BARN

Our Barns have Steel Trusses, and price includes all lumber, siding, roofing, doors, windows and lightning protection. If you can supply any lumber, send us a list of what you have and we may be able to make a substantial allowance for it. The Buildings we supply are designed to give you the greatest capacity at the lowest cost. The Barn shown and described above is the strongest, neatest and best-protected Barn you can buy at any price—large enough to hold all the crops from the most fertile 100-acres you ever saw. The Price, \$1,813, includes Preston Lightning Protection System. During the past six years we have erected hundreds of Preston Steel Truss Barns—and not one of these has been struck by lightning. Get a Barn you will be proud of—use the coupon below. On receipt of your request, we promptly forward our big Barn Book and full particulars of our Product and our Service.

FARMER'S GARAGE

This garage comes to you ready to erect; every piece cut and marked. No saw required—you simply nail and bolt it together. High grade material throughout.

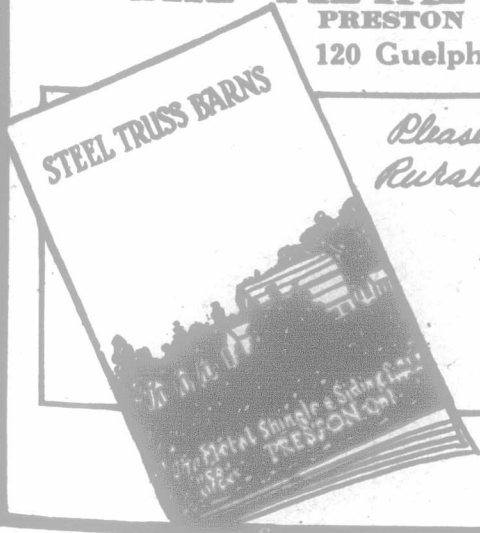
Read what a purchaser has to say:

"My garage cost me about half what a similar garage was advertised for, by another firm. It is large enough so I can run my 7 passenger car in."

S. WAY KENT,
 Paris, Ont.

THE METAL SHINGLE & SIDING CO. LIMITED

PRESTON 120 Guelph Street TORONTO 40 Abell Street MONTREAL 86 De Lorimier Ave.



Please send me full particulars, of your Stable Plans, Rural Landscape Architecture and copy of Barn Book.

Name _____
 Address _____
 R.R. No. _____

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

AFRICAN GANDERS, INDIAN RUNNER, Pekin and Muscovy Ducks, Barred Rock Cockerels. John Annesser, Tilbury, Ont.

BARRED ROCKS, THE SAME OLD STRAIN that wins in egg and show contest; cockerels, two and three dollars; also a few nice pullets. Central Ontario Poultry Yards, Colborne, Ont.

MAMMOTH BRONZE TURKEYS, W. H. Beattie, R.R. No. 1, Wilton Grove, Ontario.

MAMMOTH BRONZE TURKEYS FOR sale; prize winners. Angus Beattie, R.R. No. 1, Wilton Grove, Ont.

PUGH'S PEERLESS S. C. RHODE ISLAND Reds, a number of large, dark, brilliant, Red cockerels; all sired by my second (Ontario) Guelph cock 1916, and winner of two firsts at Waterdown. Grand breeders at \$3 and \$5 each. Exhibition cockerels a matter of correspondence. All birds shipped on approval. Fred M. Pugh, Claremont, R. R. No. 3, Ontario.

S. C. BROWN LEGHORNS, GOOD LAYING strain. Cockerels \$2 each. Wm. Bunn, Denfield, Ontario.

WHITE WYANDOTTE COCKERELS, HENS, and pullets bred from winners at Guelph for 4 successive years. Improve your stock. Satisfaction guaranteed. R. Trivett, Box 346, Newmarket, Ont.

WHITE WYANDOTTE CHOICE BREEDING cockerels, big strong typey birds, few left, \$5, \$8, \$10, each. Robert Scott, Tambling Post Office, London.

WANTED
Crate-fed Chickens
(Dressed)
Also **LARGE FOWL (Alive)**
Write for Price List.
WALLER'S, 702 Spadina Ave., Toronto

WANTS & FOR SALE

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

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

FOR SALE—200 ACRE FARM, FIRST-CLASS condition, buildings included. Apply F. H. Orris, Box 142, Springfield, Ont.

FOR SALE: BLACK COLLIE PUP, MALE. Bred from heejers. Ready for work. Price \$5. John Arnott, Bright, Ont.

FOR SALE—MAGNIFICENT STOCK FARM; fine soil, land gently undulating; superior buildings, modern labor saving appliances; broad, unbroken fields; hardwood bush; delightful location, easy distance to churches and schools. Intending purchasers should write direct to S. G. Read & Son, Limited, Brantford, Ont.

SEVERAL ANGORA DOES AND BUCKS for sale. For particulars address J. Clarke Reid, Mgr., Isleigh Grange Stock Farm, Danville, P.Q.

WANTED—EXPERIENCED MAN TO TAKE charge of small dairy farm close to Detroit. Must be a worker. Splendid place for the right man. State age, experience and salary expected W. J. Brown, 193 Woodward Ave., Detroit, Mich.

WANTED—BY MIDDLE-AGED MAN, position as superintendent of large farm. Experienced in all branches of agriculture, stock-raising, sheep-breeding. Long experience in Scotland as well as Canada. Reply, describing farm and equipment, salary offered. "B"—49 B Frontenac Street, Sherbrooke, Que.

YOUNG MAN DESIRES WORK WITH stock breeder: fourteen month's experience on stock, grain, fruit, truck farming. Can handle horses, milk and plow. Box A., Farmer's Advocate, Toronto.

- Coming Events.**
Jan. 14-March 29—Short Courses at Ontario Agricultural College.
Jan. 29-April 11.—Short Courses at Kemptville Agricultural School.
February 3-7.—Live Stock Breeders Meetings, Toronto.
February 4, 5, 11 and 12.—Live Stock Breeders' Meetings, Montreal.
February 4-5-6.—Ontario Beekeepers Association Convention, Toronto.
Feb. 5-6-7.—Ontario Horticultural Association Convention, Toronto.
February 11 to 14.—Ontario Corn Exhibition, Chatham, Ont.
February 13-14.—Ontario Association of Fairs and Exhibitions, Toronto.
Feb. 18-19-20.—Ontario Fruit Growers' Association Convention, Toronto.

Markets

Continued from page 174.

fact that mills have been closing down owing to the cessation of purchasing for the Allies. Prices held steady, at \$11.25 for Manitoba Government standard spring wheat flour in bags, for shipment to country points, Montreal freight or delivered to city bakers. Ontario winter wheat flour, \$11.10 per barrel, in new cotton bags. White corn flour, \$9.60 to \$9.80; rye flour \$10.75 to \$11 per barrel, delivered to the trade.

Millfeed.—Car lots of bran were quoted at \$37.25 and shorts at \$42.25 per ton, ex-track; pure grain mouille in broken lots at \$68; pure oat mouille, \$62 to \$64; corn meal feed \$60 to \$62; barley feed, \$54 to \$58; mixed mouille, \$46 to \$48; dairy feed, \$42 to \$43 per ton, including bags, delivered to the trade, less 25c. per ton for spot cash.

Baled Hay.—No. 1 timothy, \$21 to \$22; No. 1 light clover mixed \$20 to \$21; No. 2 timothy \$20 to \$21; No. 2 clover, \$19 to \$20; No. 3 timothy \$18 to \$19 per ton, ex-track.

Hides.—Prices were unchanged at 17c. per lb. for cows; 15c. for bulls; 21c. for steers, flat; veal skins, 20c.; for grassers and kips, and 30c. per lb. for veals; lamb skins \$2 each; horse \$5 to \$6.50 each; rough tallow, 3 1/4c. per lb.; abattoir fat 8c.; and rendered, 15c. to 16 1/2c. per lb.

Chicago.

Hogs.—Butchers', \$17.50 to \$17.70; light, \$16.75 to \$17.45; packing, \$16.50 to \$17.30; throwouts, \$15.75 to \$16.50; pigs, good to choice, \$11.75 to \$14.50.

Cattle, compared with a week ago, choice and prime beef steers steady; others 25c. to 50c. lower; most decline on \$15.50 to \$18 grades. Fat cows and heifers unevenly 50c. to \$1 lower. Canners and bologna bulls, 50c. lower. Beef bulls and calves, \$1.50 lower. Strong weight feeder steers, 25c. lower; light stock, slow to 25c. lower.

Sheep, compared with a week ago. Fat lambs and light yearlings mostly 50c. lower. Fat sheep 25c. lower.

Cheese Markets.

Montreal, finest Easterns, 27c. to 28c.; New York specials, 36c.; average run, 35c.

Gossip.

Sale Dates.

Jan. 30, 1919.—Peterboro County Shorthorn Breeders' Association, Peterboro, Ont.

Feb. 4, 1919.—J. Lloyd-Jones, Burford, Ont.—Shropshires and Southdown Sheep.

Feb. 5, 1919.—John Miller, Ashburn, Ont.—Shorthorns.

Feb. 6, 1919.—Thos. L. Mercer, Markdale, Ont.—Shorthorns.

Feb. 6, 1919.—Lambton County Stock Breeders' Dispersion Sale, Petrolia, Ont.; W. P. Macdonald, Secretary.

Feb. 7, 1919.—J. I. Elliott, R. R. 4, Guelph, Ont.—Shorthorns.

Feb. 7, 1919.—Canadian Hereford Breeders' Association, Toronto, Ont. H. D. Smith, Secretary, R. R. 1, Ancaster, Ont.

Feb. 8, 1919.—A. & G. Forbes, R. No. 2, West Montrose, Ont.—Shorthorns and Leicester Sheep.

Feb. 20, 1919.—T. J. Spaulding, Aurora, Ont.—Jerseys.

March 3 and 4, 1919.—Union Stock Yards, Toronto, Ont.—Horses.

March 5, 1919.—Guelph Fat Stock Club, Guelph, Ont.—Pure-bred Stock.—J. M. Duff, Secretary.

March 6, 1919.—Bruce County Breeders' Club, Walkerton, Ont.—Shorthorns.—N. C. McKay, Secretary.

March 12, 1919.—Perth District Holstein Breeders' Club, Stratford, Ont.—A. C. Park, Secretary.

March 13, 1919.—Wm. T. McCormick, R. R. No. 1, Paris, Ont.—Shorthorns, Horses, etc.

March 19, 1919.—W. B. Poole and A. Groves, R. R. No. 5, Ingersoll, Ont.—Holsteins.

March 19, 1919.—Oxford Holstein Breeders' Club, Woodstock, Ont.—W. E. Thomson, Sec.-Treas.

April 3 and 4, 1919.—Western Canada Shorthorn Show and Sale, Brandon, Man.

Come to Detroit
The Automobile Center
and
LEARN AUTO AND TRACTOR BUSINESS



The automobile and tractor industries offer you greater opportunities than ever before. Now that the war is over, the factories are again building autos, trucks and tractors. It is reported that the Ford Motor Company alone has orders ahead for 250,000 to 300,000 cars, not including trucks. It is said that Dodge, Buick, Cadillac, Packard and many others have enough unfilled orders on hand to keep them going at full speed day and night for months. Tractor factories are also behind on orders. Thousands of trained auto and tractor men are needed. Get ready to enter a successful and profitable life work.

EARN \$100 TO \$400 A MONTH

Hold down a good job or go into business for yourself. We can teach you in a few short weeks to handle any auto or tractor proposition. Our garage repair shop has from twenty to thirty-five cars for you to work on. Different cars go and come every day.—In our block test department alone, we have twenty-five different types of motors. We have absolutely the best equipment obtainable.

Factories Endorse Our School.

The leading automobile factories in Detroit and other cities endorse our school, our equipment and our methods of teaching. Read some of their endorsements on this page. These were written in reply to letters from different parts of the country asking about us.

Aeroplane Course Included in Auto Course.

We are including the complete Aeroplane Mechanics Course with the Automobile Course at no additional cost. We have Curtiss equipment for instructions.

Earn While You Learn.

If necessary we can secure work for you to help pay expenses while you are taking our courses.

Detroit is Place to Learn, You Can Start Any Time.

Detroit trained men get preference and get jobs quickly. No other city can give what Detroit does with its more than 184 large auto and accessories factories. Think what it means to learn in the Michigan State Auto School. 71% of autos made in Detroit. We have a Sprague Electric Dynamometer. School open all the year. Enter classes anytime, any day. Three classes daily, morning, afternoon, evening.

FREE—New 176-Page Catalogue.

Fill in the coupon; get the "Auto School News" and New 176-Page illustrated Catalogue showing 133 illustrations, letters from graduates and big factories. All absolutely free. Or better still, jump on the train, as hundreds have done, and come to the "Heart of the Automobile Industry" and learn right.

Money-Back Guarantee.—We guarantee to qualify you for a position as chauffeur, repair man, tester, demonstrator, auto electrician, garage man, or automobile dealer, aeroplane motor mechanic or tractor mechanic and operator, paying from \$100 to \$400 monthly, or refund your money.

MICHIGAN STATE AUTO SCHOOL

The Old Reliable School
Automobiles, Trucks, Tractors, Aeroplanes
1841 Auto Building, 687-89-91 Woodward Avenue, DETROIT, MICH., U.S.A.
A. G. Zeller, Pres.



Walkers, Ont., Jan. 8th, 1919

Messrs Silverwoods, Limited,
London, Ont.

Dear Sirs:—

As we have been using the Anker-Holth Cream Separator now for nearly a year we wish to say we are well satisfied with it in every way. It is a perfect skimmer and is easily operated and cleaned.

To any one wishing to purchase a good cream Separator we can fully recommend the Anker-Holth.

Yours truly
Duncan Munroe



THE COLLINS CYCLE HATCHERS

THE 50 Egg Incubators are built scientifically. They hatch close to nature's way. Use one gallon of oil for entire hatch. Simple to operate. Full directions with each machine. Cycle Hatchers \$8.00 Brooder Hatchers \$10.00.

Write for Catalogue to

COLLINS MFG. CO., 411 Symington Avenue
TORONTO, ONTARIO

Gossip.

Attention is herewith called to the Forbes sale of Shorthorn cattle and Leicester sheep, which is advertised elsewhere in this issue. The sale is held at the farm, fifteen miles west of Guelph on February 8, commencing at twelve o'clock. Thirty-eight head of Shorthorns are Scotch and Scotch-topped; five head of these are imported. Quite a number of the cows have calves at foot. Imported sires have been used at the head of this herd. This is an opportunity of securing some good foundation material. C.P.R. trains will be met at West Montrose and G.T.R. trains at St. Jacobs. For detailed information regarding the offering, write A. & G. Forbes, R. R. 2, West Montrose, for a catalogue.

More True Than Funny.

An old negro not long ago applied for membership in an extremely Eastern city. But the bishop of this refined congregation told the man that his spiritual condition was not satisfactory and sent him home to pray.

After a few days the petitioner again sought the minister and again the bishop said that he was unsatisfied and recommended the darky to prayer. But the next day back came the old man, his face shining.

"Well," said the bishop. "How is it with you, Sambo?"

"It's all right sub," answered the darky. "I prayed to de Lord, and the Lord said 'Go ahead, Sambo, and good luck to you. Ise been trying to git into that church for twenty years myself.'"

Questions and Answers.

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

Miscellaneous.

Administration of Estate.

If a man dies leaving everything by will to his wife, does she have to get letters of administration before she can sell any of the property or draw any money out of the bank? MRS. A. J. C. Ontario.

Ans.—Yes.

Railway Crossing.

1. Can I claim a farm crossing if the man that sold the right of way forty years ago agreed to have no crossing?
2. Would it make any difference if the man that sold the land to the railway company was executor and not the owner of the estate? W. A. T. Ontario.

Ans.—1. Probably not.
2. It might; but we cannot tell without—for one thing—knowing the terms of the will and the powers thereby given to the executor.

Lump Jaw.

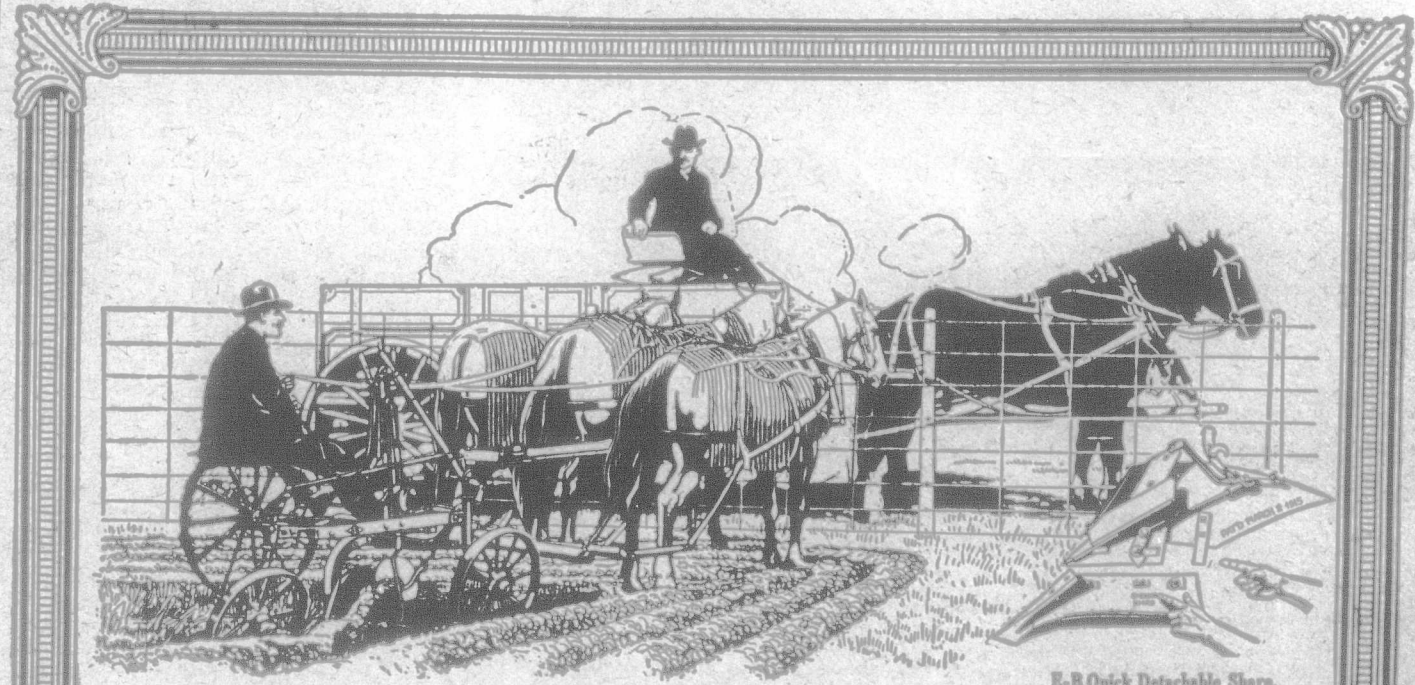
What is a cure for lump jaw? J. S.
Ans.—You might try the iodide of potassium treatment, which consists of giving the material three times daily, commencing with one-dram doses and increasing the dose by one-half dram daily until the animal refuses food and water, fluid runs from the eyes and mouth and the skin becomes scurfy. When any of these symptoms become well marked, cease giving the drug. If necessary repeat treatment in three months. If the bone is not involved the quickest method of treatment is to dissect the tumor out. There is a commercial lump jaw cure on the market which has given results.

Cost of Feeding a Calf.

I sold a grade calf to a friend who keeps a store. As he had no place to keep her, he let a neighbor have her for a year. The storekeeper supplied two bags of rolled oats and five bags of calf meal, valued possibly at \$10 in all. After having the calf for a year he sends in a bill for \$65 for board. The storekeeper considers this too high. What would be a fair charge? R. H.
Ans.—Without having a fair idea of the amount of grain fed, it would be difficult to arrive at an estimate of the cost of feed. Sixty-five dollars in cash, plus the concentrates supplied, appears rather high. If the heifer was on grass through the summer, without grain, it would not cost over \$2.50 per month. Yearlings are wintered in some sections on straw and silage at around \$3 per month. If hay and grain were fed an estimate of the amount could be arrived at and figured up at the prevailing market price in that locality. Unless the calf received a good deal of attention and a large quantity of concentrates, the board bill is high.

Raising Colts on Shares.

1. A rents a farm to B 12 years ago. A reserves pasture for 2 horses, and has only had one part of the time on the farm. He also put a mare on the place for us to raise colts on shares. We owned the stallion and bred the mare. We raised one colt, and one colt died. We broke the one colt when he was 3 years old and worked him part of the time. When we were not working him he was standing in the stable or in the pasture. B died 3 1/2 years ago and C, his son took the place over. They were to get half the colts. A wants the farm, and C has moved off. B wanted to buy the colt from A, and A said he did not want to sell his half share of him, but that B could keep him on the farm and work him. B and C have had him 5 years to work. They have not worked him half the number of days in that time.
Can A charge C for the pasture of the two horses for the time they were not pasturing on the farm?
2. A says C should leave the horse on the farm for what time he has worked for C. Now C could not afford to feed his share of the horse without working him provided A did not work him for his



"Nobody's Found the Way to Equal E-B Detachable Shares"

PLOWING is pleasurable with E-B Footlift Plows equipped with E-B Quick Detachable Shares—an exclusive E-B feature.

Let a man remove and replace an E-B share with one pull of the lever, and he realizes that it's easy to keep E-B Sharp Shares on his plow all the time.

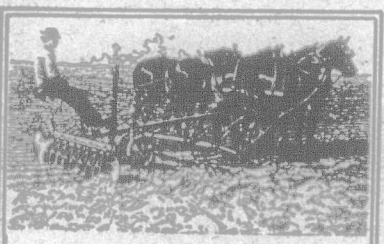
And one season's crop results convince him that E-B sharp share plowing allows free air circulation through the soil arteries, eliminates poisons, increases available plant food.

You Must Raise Bigger Crops E-B Sharp Shares Help You

Dull shares obstruct moisture circulation. E-B sharp shares increase it. With only one motion of the lever necessary to apply or remove the shares, you can change easily the moment they're dull. 5 seconds are sufficient for either operation. See the E-B Footlift Riding Plow at the E-B dealer's. The many points of superiority will prove to you the necessity of E-B sharp share plowing on your farm.

EMERSON-BRANTINGHAM IMPLEMENT COMPANY, Inc. Established 1852 ROCKFORD, ILL. The Most Complete Line of Farm Machinery Manufactured

E-B Quick Detachable Share. One pull of lever forces share into position and locks it. No bolts. No wrench. Just your hands. Attached or removed in a few seconds.



E-B Disc Harrows Bring Big Crops With Less Effort

The long levers on E-B Disc Harrows make gang shifting easy. Not only is the handling easier but the work is better.

The E-B Disc Harrow is quickly and easily adjusted and has great flexibility and increased penetration. This insures thorough pulverization of the soil, better seed bed, larger yield.

Have your dealer give you complete details of this Harrow.



E-B Drills

Produce Maximum Crop Yield With Less Seed

When you use an E-B drill you can be certain that every seed is planted at the bottom of the furrow at a uniform depth regardless of uneven ground. Disc, boot and deflector act together to obtain this result. That assures even germination and greater yields.

Dust-proof bearings, oiling of bearings without the use of wrench, quick adjustment for wear, patented feed cup and patented extension spring pressure are among the many other special features of the E-B Drill. Ask your dealer.



E-B Planters

Produce More Corn With Less Labor

The E-B Planter is strong, simple, easily handled. Accurate drop and even depth insure a practically perfect stand; greater crop yield with minimum investment in seed and labor.

Fewer parts and greater strength practically eliminate repair, adjustment and delay. Variable drop feature, one-piece valve and large seed box are practical advantages that every farmer likes.

Your E-B dealer will be glad to show you the E-B Planter and give you the reason why it increases the corn crop.



Address: EMERSON-BRANTINGHAM IMPLEMENT CO., Inc., REGINA, SASK. and the JOHN GOODISON THRESHER CO., SARNIA, ONT.



130-Egg Incubator and Brooder For \$17.50

If ordered together we send both machines for only \$17.50 and we pay all freight and duty charges to any R. R. station in Canada. We have branch warehouses in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under egg tray. Especially adapted to Canadian climate. Incubator and Brooder shipped complete with thermometers, lamps, egg testers—ready to use when you get them. Ten year guarantee—30 days trial. Incubators finished in natural colors showing the high grade California Redwood lumber used—not painted to cover inferior material. If you will compare our machines with others, we feel sure of your order. Don't buy until you do this—you'll save money—it pays to investigate before you buy. Remember our price of \$17.50 is for both Incubator and Brooder and covers freight and duty charges. Send for FREE catalog today, or send in your order and save time. Write us today. Don't delay. WISCONSIN INCUBATOR CO., Box 222 Racine, Wis., U. S. A.

share; therefore his share of the horse's time stood idle. What would you say would be the best way for C to do: sell the horse and pay A his half or what?

3. Can A charge C for the use of the horse?

Ans.—1. No.
2. It is a matter for mutual arrangement. We do not see that C is legally entitled to sell the horse as suggested, without A's concurrence.
3. No.



"Thank God for Tea" —Sydney Smith

In Sydney Smith's delightful volume, "Lady Holland's Memoirs," there appears this passage:

"Thank God for Tea! What would the world do without Tea? How did it exist? I am glad I was not born before Tea."

A more concise testimonial to the joys of Tea drinking could hardly be written.

Most people feel this way about Lipton's, but cannot express the sentiment so well.

We positively guarantee the quality of Lipton's Tea because we grow it, blend it, pack it, and sell it ourselves.

Lipton's Tea aids digestion, soothes the body, and enlivens the spirits.

LIPTON'S
TEA PLANTER, CEYLON
THE UNIVERSAL TEA
300 CUPS TO THE POUND SOLD EVERYWHERE



Rennie's Seeds

Always Grow
and

Produce the Best

Sold Everywhere
Write to-day for Catalogue—Now Ready

THE **WILLIAM RENNIE COMPANY LIMITED**
KING & MARKET STREETS, TORONTO
ALSO AT MONTREAL WINNIPEG VANCOUVER



GREATER PRODUCTION DEMANDS A

Spramotor
It isn't a SPRAMOTOR unless we made it

THE Government has been impressing upon growers the necessity of greater production. Every amateur farmer (in the city) and armchair critic has come forward with advice; but one of the greatest means to increase production has been the efficient pest-killing, weed-extirminating, blight banishing, Spramotor. We make a machine for every purpose, at prices from \$7 to \$400. You start out for bigger yields the day you own a Spramotor, sure.

IMPORTANT:

The raw material situation is such that we are compelled to urge intending sprayers to place their orders AT ONCE for Spring delivery if they want to be sure of a machine. Write for free treatise on "Crop Diseases".

B. H. HEARD, SPRAMOTOR

5052 King Street - London, Canada

Mink Trapping.

BY H. C. HADDON.

Mink are found throughout practically the whole of Canada and the United States, and different districts will often show a distinct variety. For instance skins from Maine and the northeastern states are small and dark, while those from Manitoba are much larger, but not so well colored. Again the Pacific Coast mink are small in size and pale in color. The value of the skins depends more on the color than on the size, and a small dark skin is always worth more than a large pale one. In districts where trapping is persistent mink grow very sly and cunning. In fact many trappers rate them second only to the fox for ability to keep out of traps. Where they have not been trapped much they take bait well, and are easily caught.

Personally I have caught a great many mink in the No. 0 trap but a larger size is safer, say a number 1 for water-trapping and a number 1½ if dry land sets are made.

Mink trapping is divided into three divisions, namely blind, bait and water sets.

In the early fall, before younger animals are all caught off bait sets are probably the best. Then, later on in the winter blind sets should be used, and by this method you will pick up quite a few of the old veterans who refuse to look at bait.

A blind set, of course, is always the most deadly, as the animal's suspicions are not aroused, but it is also the hardest to make. No bait is used, and the trap is simply placed in some spot where the mink will step into it. A little investigation will show that the mink has a regular route of travel along some creek. Here he may go through a hollow log, or jump some obstruction, or a shelving bank may crowd him down to the water's edge. Any place that you can find like this is an ideal situation for a blind set. The trap must be carefully covered and the whole thing must look as natural and undisturbed when you have finished as it did when you started.

If you are trapping near water stake your trap chain as far out in the water as you can. As soon as the mink is caught he will take to the water and the weight of the trap will drown him. When you get a mink that has been drowned take it by the hind legs and snap it the same way as you would a whip, then repeat the process with the front legs, and this will shake out most of the water. Never skin any animal when it is wet.

Mink are usually found in the vicinity of water, along streams and creeks or on pond or lake shores, though they also travel long distances overland when the mood seizes them. Mink are so much creatures of mood that it is impossible to say where they will be tomorrow. For this reason if you find mink tracks on a certain stream and fail to make a catch do not get discouraged but keep your bait fresh and your trap in good working order and the chances are the mink will return and pay your trap a visit.

In bait trapping the sets are usually made along stream or river banks. Old upturned roots, log jams, sand bars, etc., are always visited by this energetic little fur bearer, and these are the places to set your traps. The simplest and easiest way is to build up a little pen of rocks or drift wood, placing it inside a hollow stump or under a log jam where the snow will not cover it, and place the bait at the back and the trap at the entrance. Also if you can find natural sets like a crevice in the rocks or a hollow in a tree these are much less liable to cause suspicion than an artificially constructed set. Place the bait in such a position that the mink has to cross the trap to reach it. For bait birds, chickens, frogs, muskrats or fish are all good, for the mink is not a particular feeder. I prefer the intestines of any animal for bait rather than the animal itself and have caught many mink with mink intestines.

Before the water freezes over sets made in the water are very successful as the smell of iron and the human scent are removed. Dig out a little pocket in the bank, placing your bait back at the end of the hole and the trap directly below it. The trap should be in about an inch and a half of water, and should always be lightly covered, whether set in the water or on dry land.

Where mink take bait any of these sets will meet with success. Where they fight shy of bait the trapper has to

pit his intelligence against that of the animal, and only extreme care and caution will enable him to make a catch.

A good way to fool one of these wise fellows is to take some chicken offal and feathers and place them in a hollow tree or under a log jam where the snow will not bother you, and set your trap among the feathers. Scatter round the contents of the scent sacks of a skunk or even a mink or weasel. The idea is to make the mink believe that the chicken was killed by some other animal and the chances are that he will investigate in the hopes of finding some forgotten trifle. Blood and feathers and skunk scent will always allay suspicion, and this combination will furnish some good sets.

The skins should be well fleshed, as they are very fat and greasy, and they should be shipped without turning—that is flesh side out.

How Could He?

Lady: Can't you find work?

Tramp: Yessum; but everyone wants a reference from my last employer.

Lady: And can't you get one?

Tramp: No, mum. Yer see, he's been dead twenty-eight years.

What He Wanted.

A boy made out a list of things he hoped to receive for his approaching birthday, and this is what his fond mamma found recorded as the first item of all:

"A new testament, reversed virgin."

Mother.—I don't like the looks of that little boy you were playing with on the street to-day. You mustn't play with bad little boys, you know.

Son—Oh, but he isn't a bad little boy, mamma. He's a good little boy. He's been to the reformatory school twice, and they've let him out each time on account of good behavior.

A Valuable Patent.

An old colored minister announced that he had invented an automatic collection basket, which would be passed around by the deacons of his church. "It is so arranged, my brethern," said he, "dat if you drop in a quatah or half dollah it falls noiselessly on a red plush cushion; if you drop in a nickle it will ring a bell dat can be distinctually heard by de entiah congregation; but if you let fall a suspender button, my brethern, it will fiah off a pistol."

An Atlanta lawyer tells of a newly-qualified judge in one of the towns of the South who was trying one of his first criminal cases. The prisoner was an old negro charged with robbing a hencoop. He had been in court before on a similar charge and was then acquitted.

"Well, Henry," observed the judge, "Yessuh," replied the negro, "De las' time, jedge, you rec'lect, you was mah lawyuh."

"Where is your lawyer this time?" said Henry. "Ah's gwine to tell de troof."

"Shoestring's untied, ma'am," a small boy called out to the stout woman who moved majestically up the street. "I'll tie it for you."

Even a haughtier woman would have found it difficult to treat with disdain so kind an offer, and she drew back her skirt in acceptance of it.

The little boy pulled the strings tight and smiled up at her. "My mother's fat, too," he explained.

"You ought to have seen Mr. Marshall when he called upon Dolly the other night, remarked Johnny to his sister's young man, who was taking tea with the family. "I tell you he looked fine a-sitting there alongside of her with his arm—"

"Johnny!" gasped his sister, her face the color of a boiled lobster.

"Well, so he did," persisted Johnny.

"He had his arm—"

"John!" screamed his mother frantically

"Why," whined the boy, "I was—"

"John," said his father sternly, "leave the room!"

And Johnny left, crying as he went: "I was only going to say that he had his army clothes on."

JANUARY
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LIVE
One Here
Apply to
WM. BURNI

SEEDS

Grown in the County of Haldimand.

Our County took First Prize at Guelph Winter Fair this season on Red Clover, Alsike and Alfalfa.

These prices good till next issue of this paper as long as our Stocks last

- RED—No. 1.....\$30.00
 - RED—No. 2..... 29.00
 - ALSIKE—No. 2..... 18.50
(No. 1 Purity)
 - TIMOTHY—No. 2..... 7.25
(No. 1 Purity)
 - TIMOTHY—No. 3..... 6.25
 - ALFALFA—No.2 and No.3 25.00
- Bags are 60c. each

These prices are per bushel freight paid on purchases of three bushels or over. Cash must accompany Order. If seeds does not satisfy on arrival ship back at our Expense. We can highly recommend our grade of No. 2 (No. 1 Purity). Ask for Samples.

THE CALEDONIA MILLING CO. LIMITED
Caledonia - Ont.
(Canada Food Board License No. 87)

Use **Harab-Davies Fertilizers** For Profit

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Ontario Fertilizers Limited
Toronto

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Lime improved the Physical Condition of the Soil. Use Acco Hydrated Lime on your land. It has been proven by experiments that an unlimed check plot gave a yield of 690 pounds of crop, while a limed plot gave 1,865 pounds. Why should your land not produce a heavy crop? Make it do so by using Acco Hydrated Lime as a fertilizer. Put up in 5, 10, 25, and 40 lb. bags, ready for use. Write for quotations and circulars.

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TORONTO - SOLE AGENTS

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Thorough tests on the Government Experimental Farms, show that cows after being dehorned give more and better milk. The KEY-STONE DEHORNERS is the most humane and efficient instrument for the purpose. Write for booklet. R. H. McKenna, 219 Robert St., Toronto

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A standard text of over 900 pages adopted by the United States Government. Money refunded if dissatisfied. Every automobile and tractor owner should have one. Send \$4.50 for postpaid copy to Dept. B, Dominion Text Book Co., Calgary, Alta

LIVE POULTRY WANTED

Special prices for large, fat hens alive. Also good spring chickens, alive or dressed. It will pay you to sell to

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Canada Food Board License 7-078

One Hereford Bull ten months old for sale. This bull is bred of good stock, and will be sold cheap. Apply to

WM. BURNETT, R.R. No. 3, Priceville, Ont.

Gossip.

The Lambton County Pure-bred Live Stock Breeders' third annual sale is billed for February 6, at Petrolia. Sixty head of choice cattle will be offered. In Short-horns, such families as Rosemary, Carnation, Marr Rachel, Lancaster and Jealousy are represented. The Aberdeen-Angus are represented by such families as Fair Maid of Earnside, Waterside Fair, and Frederica. This sale affords an opportunity for breeders to secure some high-class animals of both sex. Write W. P. McDonald, Petrolia, for a catalogue.

Breeders looking for high-quality Shropshire sheep, Jerseys and Ponies, should keep in mind J. Lloyd-Jones' auction sale, at Burford, on February 4. There are catalogued a large number of young, well-bred, choice quality Shropshire ewes and rams. There are also a number of Southdown ewes bred to a son of the imported McCalmot ram. The Jersey offering comprises three young cows, two heifers and a heifer calf, besides two bull calves. The Lloyd-Jones' Welsh ponies have been prominent winners at all the large Ontario fairs. There is one imported mare being offered which has won five championships, and there are also several two, three and four-year-old fillies. There will be no reserve as the farm has been sold. For particulars regarding the stock write J. Lloyd-Jones, of Burford, mentioning "The Farmer's Advocate."

J. A. & H. M. Pettit's Sept. and Nov. Importations.

In calling attention to the Shorthorn offering advertised elsewhere in this issue by J. A. and H. M. Pettit of Freeman a short summary of the herd as seen by an Advocate representative some weeks ago might be of interest. The herd on this date, numbered almost 150 head, the majority of which were imported females. There were, however, in the neighborhood of seven or eight imported bulls, of serviceable age on hand, as well as a number of British and home-bred calves and each lot brought forward some excellent herd sire material. More noticeable among the imported ones were such calves as Clipper Prince, a thick, well-turned Clipper calf bred by Campbell and got by Diamond Sceptre, a Crombie bull; Collynie Ring Leader, smooth and deep, got by Knight of Collynie and bred by Mr. Duthie. This bull is from a Rosebud dam and may easily be termed as one of the best bred bulls leaving Scotland in the past year. There is also one Brawith Bud and one Miss Ramsden yearling still in the stables each of which have style and substance. Coming to the younger imported calves, the majority of these came across the water suckling their dams and as a number of them will be getting ready for light service by March and April they offer breeders a splendid selection with the added advantage in each case of seeing their dams before making the purchase. Like the older bulls, the sires these youngsters are got by include many of Britains most noted bulls. In females too, the firm's offering has never been more varied. Among the more mature cows are the dams of the calves already referred to and they are in most instances calving again in early or late spring all to British service. Added to these are twenty-five imported, two-year-old heifers, an unusually good lot, all showing in nice breeding condition and all bred to old country sires before leaving the herds from which they were selected. As they came from such noted herds as Andersons, Durnos, Dr. Wilson's and others equally as important one may be sure that the bulls used were always the best obtainable. Quite a number in fact are bred to the Duthie-bred "Collynie Landmark" that sold in the Duthie calf sale of 1917 for \$4,500. Breeders who are intending to purchase breeding females should find these heifers excellent value as they are now far advanced in calf. The pedigrees attached to both the September and November importations will be found to be representative, many of which are the most popular ones that can be found in the Shorthorn world to-day and most things in the herd are priced to sell.

When you go to the Harness Dealer, do you just say, "Let's see some Harness?" If you do, you risk buying a set that is not guaranteed by the maker or that does not even have the maker's label on it. In buying Harness know the BRAND and the maker's name. Our goods are trade-marked —IMPERIAL BRAND and known from coast to coast as high-grade. If your dealer does not have IMPERIAL BRAND HARNESS we can supply you direct. Our prices range as low as \$22, single set complete, and \$39 team set, without collars. Our "Team Special," No. 640 is the most popular moderate priced team Harness in Canada. It is sold from Halifax to Victoria express prepaid to any station in Canada on receipt of price. Our No. 56 Rawhide Lined single Harness, is exceptional value at \$35 per set. Write us for anything in the Harness line—we have it—and our prices are as low as honest work and materials allow. Satisfaction guaranteed.

SAMUEL TREES & CO. Limited
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FERTILIZES YOUR LAND ECONOMICALLY AND EFFECTIVELY

If you know the goods place your order with our local agent right away. On the other hand, if you have never used SYDNEY BASIC SLAG, write for our pamphlet giving all information.

Agents wanted where not already represented. Write immediately.

The Cross Fertilizer Co., Limited
Sydney, Nova Scotia

ELEVENTH ANNUAL

Ontario Corn & Grain Exhibition

CHATHAM, ONTARIO Feb. 11 to 14, 1919.

Write to the Secretary for prize list and any information that is desired.

L. L. GREGORY, President **P. L. FANCHER, Secretary**
Chatham, Ontario Chatham, Ontario

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Make your **CREAM** produce the very best results.

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REMEMBER!

February 7th

HEREFORD SALE

Toronto Exhibition Grounds

A select offering—60 head

Comprising more "Bonnie Braes," "Fairfaxes" and "Refiners" than ever offered before at a Canadian sale. Every animal approved by the Association's Inspector.

Sale at 1.30 p. m., February 7th. For catalogues, etc., address:

H. D. SMITH, Secretary and Manager, ANCASTER, ONT.

Gossip.

The Elliott Sale at Guelph.

The time is getting close at hand when the adherents of good Shorthorns will have an opportunity to pass judgment on the 48 high-class cattle to be sold in the J. J. Elliott sale at the Winter Fair Buildings, Guelph, Ont., on Friday, February 7, 1919. The sale will close a series of three Shorthorn sales held on three consecutive days, all within a radius of 50 miles of one another. In all, the cattle listed for all three sales number 175 lots. The number selling in the week should prove a drawing card. The last sale includes, perhaps, more really recognized show cattle than was ever before listed for a Canadian auction, and it is, therefore, only reasonable to expect that the last day may see some new high averages for the year in Canada. On many of the more noted show animals listed in Mr. Elliott's herd it seems almost useless to dwell. Roan Lady, Rosa Hope 21st, Emma 62nd, Queen Emmeline, Princess Emmeline, Orange Maid, Augusta of Langbank, etc., are winning females that are already familiar to nearly every Shorthorn breeder who is a reader of these columns. Seldom, if ever, have so many show-ring celebrities ever been brought together in one sale-ring in any country. They, however, are only one attraction. The twenty odd breeding matrons, many of which are imported, and fifteen of which will have calves at foot by sale day, are just as noteworthy a feature. And Newton Loyalist (imp.) grand champion bull of the Western show circuit, and the sire to which the majority of these females will be bred, should keep up the interest on Feb. 7 until the last female is sold. He is also the sire of the majority of young things in the sale, including the twelve and eighteen-months bulls as well as the 1917 heifers, and all the calves selling with their dams. He is a bull whose value on sale day is sure to be appreciated by all. In breeding he is a Cruickshank Lovely, got by Newton Crystal, one of the best breeding bulls in Scotland, being the sire of Royal Crest, a great show bull selling at the Perth sale for \$18,000, Count Crystal that sold at \$6,500, Champion of Scotland and other noted sires. Look up the good things got by Newton Loyalist on sale day. Still another feature of the sale worth noting is the guarantee that goes with each animal passing through the sale. This is given in full in the advertisement appearing elsewhere in this issue, and an additional assurance is given that every female of breeding age is guaranteed a breeder. We know of no other sale ever before held in Canada where the buyer was more protected. All requests for catalogues should be addressed to R. L. Torrance, Royal Bank Bldg., Guelph, Ont., mentioning the Farmer's Advocate.

Announcing the Forbes Sale

... OF ...

Shorthorn Cattle and Leicester Sheep

on farm 15 miles west of

GUELPH, ONT., FEBRUARY 8th, 1919

Sale to commence at 12 o'clock to suit train time.

32 head of pure Scotch and Scotch-topped Shorthorns. 5 head are imported.
13 cows bred or calves at foot.
8 young bulls.
8 open heifers.
Silver Count (imp in dam) senior herd sire.
Secret Major (imp) junior herd sire.

SHEEP

5 Leicester ewes rising 2 years.
1 Leicester ram rising 2 years.

selected from the noted flock of Hastings Bros. who won numerous prizes at many of the leading shows in U. S.

JONES & MILNE, Auctioneers

Write for Catalogue to

A. & G. FORBES, R. R. 2, West Montrose, Ont.

C. P. R. trains will be met at West Montrose.

G. T. R. trains will be met at St. Jacobs.

Breeders wishing to attend the sale may leave Guelph by C. P. R. at 10 a.m. and return at 4.30 p.m. day of sale.

Now is the Time to Order Your Potato Bug Poison

Acco Spray Powder kills the potato bug and flea beetle. Half the price of Paris Green and equally as effective. A guaranteed product. For sale at all Drug and Hardware Stores. Send for circulars.

ACCO CHEMICAL CO., Ltd. Toronto
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The Advocate Advts. Pay.

SEED GRAIN

Registered Marquis wheat in sealed sacks, \$2.75; unsealed, \$2.50; per bushel. Improved O. A. C. No. 21 barley, \$1.40 per bushel. Bags free.

George R. Barrie, R.R. 7, Galt.

Seed Corn for Sale
WHITE CAP, WISCONSIN,
BAILEY.

A. GRANT FOX - RUTHVEN, ONT.

Gossip

Robert Miller's Shorthorns at Union Stock Yards.

At the Toronto combination sale-ring in past years few contributions have been more favorably received than those consigned each year by Robert Miller, of Stouffville. Mr. Miller's cattle and Mr. Miller's own personality have always featured each of these sales in the past, and his present offering now being catalogued, as usual, includes a number of the strongest things in the sale. This at least is the information obtained from the secretary of the sale, as at the time of gathering the sale particulars Mr. Miller was away on a business trip through Western Canada, which unfortunately prevented a personal inspection of the herd. As furnished by the secretary, however, Mr. Miller's offering includes several young cows that have fashionable pedigrees. They are thick, smooth individuals and all have calves at foot. A four-year-old Kilblean Beauty cow has an October heifer by Newton Grand Champion (imp.); Mysie 56th, a choice roan three-year-old from a straight-bred Mysie cow got by Broadhook's Golden Fame, sells with a bull calf got by a son of Gainford Marquis (imp.), while Nonpariel 73rd, a two-year heifer with an unusually strong Cruickshank Nonpariel pedigree, calves in March to the service of a son of the noted sire Browndale. Mr. Miller is putting in a breeding lot throughout that are, as usual, sure to be well received.

The Farrow Consignment to Toronto Sale.

The Farrow consignment of Shorthorns to the Toronto combination sale at the Union Stock Yards, on Feb. 5, includes six bulls and six females. The bulls with the exception of a nine-months Roan Lady calf by Dalisman (imp.), are all of serviceable age, and all are strong enough individually to qualify as the best of herd sire material. Dalisman (imp.), that has been one of the outstanding sires in service in Canadian herds for some time, also figures as the sire of three other bulls in the offering. Of the three, one is a straight "Clipper," of Sittyton breeding; one a Balluchin Daisy, and the other a Cruickshank Dairymaid. The dam of the latter calf, Red Dairymaid (imp.), by Stand Firm and bred by A. T. Gordon, is also in the sale. She is the thick type of matron, selling seven months in calf to the service of Pride of Escana, Mr. Farrow's great young herd sire, which is a son of the noted Right Sort (imp.). As all the females in this contribution will either have calves at foot by Pride of Escana or will be well forward in calf to his service, a word here as to his breeding, etc., would perhaps be in order. As already mentioned, he is got by Right Sort (imp.), a sire that is now too well known to both Canadian and American breeders to need further comment here. On the dam's side, however, this young sire is as fashionably bred. His dam being Novilton, a Golden Drop Gordon-bred cow got by Newton Crystal, the sire of many of Scotland's record-priced present-day bulls. His second and third dams, also Golden Drops, were both got by Duthie bulls, the former being sired by Barron Lavender, and the latter by Princely Archer. On both the sire and the dam's side it will, therefore, be seen that Pride of Escana carries a pedigree unexcelled in present-day popularity, and his get now arriving in the herd and seen recently by the writer all show exceptional promise. Other cows listed, besides the Dairymaid cow already mentioned, that are well forward in calf to this great young sire are Clementina 17th (imp.), a big, smooth, Campbell-bred Clementina by Nonpariel Hero, due in June; Cinderella 12th, a 3-year-old Roan Lady heifer by a son of Uppermill Omega (imp.); Glenbuell Clipper 2nd, a choice Sittyton Clipper-bred cow, third dam by William of Orange; Roan Lady, a two-year-old by Matchless Chief, and others; all of which have been selected from Mr. Farrow's breeding herd of females which is to-day, in both breeding and individuality, one of the strong herds of the Dominion. All requests for catalogues of sale should be addressed to the sale secretary, John Miller, Ashburn, Ont.

"The man who gives in when he is wrong," said the street orator, "is a wise man; but the man who gives in when he is right is—"

"Married!" said a meek voice in the crowd.

Gossip

Shorthorns at Union Stock Yards.

A combination sale-ring contributions have been received than those contributed by Robert Miller, of Miller's cattle and Mr. Personality have always these sales in the past, offering now being equal, includes a number things in the sale. This information obtained from the sale, as at the time of sale particulars. Mr. Personality on a business trip to Canada, which included a personal inspection. As furnished by the Mr. Miller's offering young cows that have been bred. They are thick, and all have calves. A year-old Kiblean Beauty per heifer by Newton (imp.); Mysie 56th, a year-old from a straight-got by Broadhook's with a bull calf got from Marquis (imp.). A two-year heifer strong Cruickshank, calves in March to son of the noted sire Miller is putting in a throughout that are, as well received.

Assignment to Toronto sale.

Assignment of Shorthorns combination sale at the Union Stock Yards, on Feb. 5, includes a number of bulls with a nine-months Roan man (imp.), are all of all are strong enough to be the best of herd man (imp.), that has standing sires in several herds for some time, and of three other bulls of the three, one is a year-old Sittyton breeding, and the other a year-old. The dam of the year-old (imp.), by A. T. Gordon, is a thick type of cow in months in calf to the dam of Escana, Mr. Personality's herd sire, which is a Right Sort (imp.). In this contribution as at foot by Pride of all forward in calf to be as to his breeding, to be in order. As the sire is got by Right Sort that is now too well known in the American market, other comment here.

However, this young bull is bred. His dam is a year-old Drop Gordon, a year-old Crystal, the sire of his record-priced second and third calves, were both got from former being sired and the latter by both the sire and the dam, therefore, be seen to carry a pedigree of day popularity, and in the herd and seen all show exceptional ability, besides the year-old mentioned, that calf to this great tina 17th (imp.), a year-old Clementina due in June; a year-old Roan Lady Uppermill Omega Upper 2nd, a choice cow, third dam by a year-old Lady, a two-year-old Chief, and others; selected from Mr. Personality's herd of females which are breeding and in-coming herds of the best for catalogues of the sale at Ashburn, Ont.

When he is a year-old, "is a wise choice" gives in when he gives voice in the

Fence For Profit

Add to farm values—make beautiful, useful and convenient your fencing—always safest to use the best.

The Fence for Real Protection

gives life time service. Is made of the best Open Hearth steel fence wire, all impurities burned out, all the strength and toughness left in. Makes the fence elastic and springy. Will not snap or break under sudden shocks or quick atmospheric changes. Galvanized to prevent rust and the coating will not flake, peel or chip off. Can be erected over the most hilly and uneven ground, without buckling, snapping or kinking. Every joint is locked together with the well-known "Peerless Lock." The heavy stay wires we use prevent sagging and require only about half as many posts as other fences. It's economy in construction.

Send for catalog. It also describes our farm gates, poultry fencing and ornamental fencing. Dealers nearly everywhere. Agents wanted in unassigned territory.

THE BANWELL-HOXIE WIRE FENCE CO., Ltd.
Winnipeg, Man. Hamilton, Ont.

Brookdale Herefords

A few choice bulls of Bonnie Ingleside 7th, Dock Publisher & Beau Albany, breeding from seven to eight months of age. No females to spare at present. W. READHEAD, Milton.

Gossip

The Mercer-Curry Sale.

Shorthorn breeders who are contemplating the purchase of breeding cattle should keep in mind the Mercer-Curry sale of 75 head of Scotch and Scotch-topped Shorthorns to be sold at the Union Stock Yards, Toronto, on Thursday, Feb. 6. About 60 lots, which number includes twenty-five calves with their dams, are drawn from the herd of Thos. Mercer and the remaining fifteen head (five bulls and ten females) are consigned by Fred J. Curry of the same place. As a breeding lot of cattle few sales offer more favorable attractions. In Mr. Mercer's offering are included over twenty breeding cows that will have their calves by their side on sale day, and while these cows are not highly fitted they are, in every instance, in good breeding condition, and a stronger or more fashionable lot of pedigrees were never attached to a similar offering. Noticeable among these are such families as Clarets, Missies, Mysies, Lavenders, Miss Ramsdens, Village Girls, Lady Fannys and others. Two cows belonging to the first-mentioned family will have calves in the sale-ring, and most of the others are represented by one or more cows that also have calves listed. The majority of these calves are by Rosewood Champion, a son of Nonpariel Archer, and Christmas Gift, a son of Broadhook's Golden Fame. The latter bull has also been used on a number of the cows that are calving shortly after sale date, and he is also catalogued for sale. His dam was Duchess Pride, and she was also the dam of Duchess 50th, J. A. Watt's champion winner for the years 1914-1915. There are eight other bulls in this consignment, all of which are of serviceable age, and all bred much the same way as the younger females in the offering.

Mr. Curry's entries comprise ten females and five bulls. The latter are from 10 to 18 months calves, three are by Rosewood Champion, and one by Lord Lancaster. They are a nice even lot of youngsters and all in splendid condition. We might add here that Mr. Curry's cattle all through are showing in quite high fit. The four open heifers are in splendid show condition, while the cows, all of which are thick and big, are in excellent flesh. Scottish Maid 53rd by Royal Jilt is due in March to the service of a son of a Broadhook's Golden Fame, while all of the others are calving early to the service of Mr. Curry's own herd sire, Excelsior, a son of the great Gainford Marquis. Mr. Curry's con-

Cairnbrogie Clydesdales

STILL TO THE FORE

Imported and home-bred stallions and mares of the highest quality and individuality. Our record at the leading shows of America surpass all competitors, and we are offering for sale males and females of all ages, and should be pleased to hear from prospective buyers of quality Clydesdales at any time.

For prices and full particulars, write:

GRAHAM BROS., (Cairnbrogie,) Claremont, Ont.
Long-distance phone. Station, C. P. R.

Clydesdales and Percherons

I have 15 Clyde Stallions, 10 Percheron Stallions and 10 Clydesdales Fillies. The best collection I have ever had at any one time of prize winners and champions, all for sale at prices second to none. A visit to my stables will convince you.

T. H. HASSARD MARKHAM, ONT.

LARKIN FARMS Queenston, Ontario

ABERDEEN ANGUS and JERSEY CATTLE
SHROPSHIRE and SOUTHDOWN SHEEP

Correspondence and Inspection Invited
(Please mention "Farmer's Advocate")

NICHOLSON'S SHORTHORNS

We have about a dozen young bulls (ages 8 months and upwards), sired by our herd headers, Best Boy = 85552 = and Browndale winner = 106217 =. Write or come and see.
R. and S. Nicholson, Parkhill, Ontario

WILLOW BANK STOCK FARM

SHORTHORN CATTLE and LEICESTER SHEEP. HERD ESTABLISHED 1855—FLOCK 1848. The great show and breeding bull, Browndale = 80112 =, by Avondale, heads the herd. Extra choice bulls and heifers to offer. Also a particularly good lot of rams and ewes all ages. Imported and home bred. **JAMES DOUGLAS, CALEDONIA, ONTARIO.**

FLETCHER'S SHORTHORNS

Our herd of Scotch Shorthorns represents Orange Blossoms, Kiblean Beauties Matchless, Mysies Missies, Clementinas, etc., and is headed by the Watt-Stamford bull, Victor Stamford = 5959 = a Toronto winner. Present offering—one young bull and several heifers and cows.
GEO. D. FLETCHER, ERIN R. I. ONT.
Erin Station, C.P.R., L.-D. Phone

PINEHURST R. O. P. DUAL-PURPOSE SHORTHORNS

Herd headed by "Burnfoot Champion" = 106945 =, whose dam holds the two year old record of Canada, and his dam on sire's side has an R.O.P. record of 13535 lbs of milk and 540 lbs of fat. "Buttercup" = 111906 = has just completed her test in 4 year old form with 16596 lbs of milk in twelve months. Could spare a couple of females. Visitors welcome to the farm at any time.
G. W. CARTER, Pinehurst Farm, Ilderton, Ont.

Great Annual Special Combination Breeders' Auction Sale

Clydesdale and Percheron

Stallions, Mares, Colts and Fillies

UNION STOCK YARDS
(Horse Department)

Toronto, Ont., March 3rd and 4th

Entries close February 10th.

Write for particulars.

Union Stock Yards of Toronto, Limited
(Horse Department) **WALTER HARLAND SMITH, Manager**

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tribution is exceptionally worthy throughout, and is sure to meet with favor on sale day. All requests for catalogues should be addressed to Thos. Mercer, Markdale, Ont., mentioning the Farmer's Advocate.

Questions and Answers. Veterinary.

Fatality in Pig.

We recently had a young pig of three months die mysteriously. It appeared all right in the evening, and in the morning it was dead. A veterinary surgeon made a careful post-mortem examination, but could find nothing whatever wrong. This pig belonged to a litter which has had a very uneven growth, some being well-nourished and of good size, while others are backward and thin. They have at times a cough, but the veterinary surgeon could find no trace of tuberculosis in the lungs. One of them has been rather lame on one fore and one hind foot for a number of weeks, apparently with rheumatism, though they are kept in warm, dry quarters, with plenty of bedding. They have been fed on alfalfa pasture, and afterwards steeped chopped alfalfa hay, with turnips, and a little grain added. All our other pigs are perfectly healthy. Do these symptoms suggest any particular disease?

D. T.

Ans.—As your veterinarian failed by holding a post-mortem to determine the cause of death, it is not possible for us to diagnose. It is not unknown for young pigs to die without appreciable cause, and a post mortem reveal nothing definite. It is possible that the cough is caused by chronic bronchitis or lung worms, but neither of these conditions will cause death so suddenly. It is not uncommon for a litter to be of "uneven growth" the cause or reasons for which has not been determined. It will be wise to isolate those that cough, and if the cough continues, slaughter one and examine very carefully in the small bronchial tubes for lung worms, and inflammatory action.

We would suggest more liberal feeding of grain and shorts or middlings and seeing that they get regular daily exercise.

V.

ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

Will reduce Inflamed, Strained, Swollen Tendons, Ligaments, or Muscles. Stops the lameness and pain from a Splint, Side Bone or Bone Spavin. No blister, no hair gone and horse can be used. \$2.50 a bottle at druggists or delivered. Describe your case for special instructions and interesting horse Book 2 R Free. **ABSORBINE, JR.**, the antiseptic liniment for mankind, reduces Strained, Torn Ligaments, Swollen Glands, Veins, or Muscles; Heals Cuts, Sores, Ulcers. Always pain. Price \$1.25 a bottle at dealers or delivered. Book "Evidence" free. **W. F. YOUNG, P. D. F., 258 Lyman's Bldg., Montreal.**

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The best veterinarians available were engaged for army service. They clipped horses and mules regularly. Just as army horses did their best work when properly clipped, so will yours. Get a clipping machine NOW! You can't beat a Stewart No. 1. Get one from your dealer. If he can't supply you send us his name. Write for 1919 catalogue. **CHICAGO FLEXIBLE SHAFT COMPANY** Dept. 161, 12th St., and Central Ave., Chicago, Ill.



Sunnyside Herefords

Young cows; heifers due, or calves at foot; heifer calves; 1st prize bull calves, Toronto, London and Guelph, 1918. A few yearling bulls. Collie pups, cattle dogs, parent heifers and sheep dogs \$5; females \$3. **Arthur F. O'Neil - Denfield, Ont., R. No. 2**

Hereford Bulls for Sale

Rex Ingleside 19371, an exceptionally good herd bull, 3½ years old, in excellent condition. Three fine, healthy, young bulls, sired by Rex Ingleside, all well marked and eligible for registration. Prices on application.

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Will Exchange

A good sure breeding and sound dapple grey Percheron Stallion for a registered shorthorn cow with calf and heifer calf by side. Address

ROBEY and MERCER
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The present string of young bulls for sale includes some classy herd bull prospects, winners themselves and sired by champions. If interested in Angus, write your wants. Visitors welcome. **G. C. CHANNON, P.O. and Phone, Oakwood, Ont.** Railway connections, Lindsay, C.P.R. and G.T.R.

Springfield Farm Angus

I have six bulls from 8 to 15 months. All sired by Middlebrook Prince 5th, a son of Jock of Glencairn. Four of these are show calves. Also have other calves younger and could spare a few heifers safely bred to same sire. **Kenneth C. Quarrie, Bellwood, Ont.** R.R. No. 5, Bellwood, C.P.R. Fergus, G.T.R. Bell Phone Fergus

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Angus—Southdowns—Collies
SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward, 1st prize, Indiana State Fair. **Robt. McEwen, R.R. 4, London, Ont.**

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Forest, Ontario.

Alonzo Matthews Manager
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The strongest offering we ever had, all are sired by Victor of Glencairn and a number are ready for service. Prices reasonable. **PETER A. THOMSON - Hillsbury, Ont.**

Angus Cattle—Our present offering is three good yearling bulls, and could spare enough females to make balance of a carload. Western buyers should call to see them. One of the oldest herds in Canada. **J. W. BURT & SONS, Aberdeen Farm, R.R. 1, Hillsburgh, Ont.** Long-distance phone, Erin Central.

Aberdeen-Angus—Several young bulls and heifers for sale. Sired by "Middlebrook Abbot 2nd" (1st prize in class at Toronto and Ottawa, 1915). Apply to **A. DINSMORE, Manager, "Grape Grange" Farm, Clarksburg, Ont.** 1¼ miles from Thornbury, G.T.R.

Balmedie Aberdeen-Angus.

Nine extra good young bulls for sale. Also females all ages. Show-ring quality. **THOS. B. BROADFOOT, FERGUS, ONT.**

Questions and Answers.

Miscellaneous.

Work on Ranch.

Are there any large ranches in the West? Would they take a young fellow who has had experience on the farm, but cannot ride a horse? I would like to learn to be a cow boy. — J. D. L.

Ans.—There are a few ranches throughout the Western Provinces and also in the States. We cannot give you the addresses of the Managers of these ranches, but you might be able to secure them by writing the Department of Agriculture, at Edmonton, Alta. If you cannot ride, after living on a farm for a number of years, we doubt if you would make much success as a cow boy.

Lice—Worms.

1. Is sulphur harmful to horses? If fed to them will it kill the lice on them?
2. What is a remedy for a colt troubled with worms? — O. C.

Ans.—1. A little sulphur will do no harm. A person might feed a half teaspoonful in the feed each day. We doubt if feeding it will have any effect on the lice. Mixing one part hellebore to four parts cement and dusting it on the animal is an effective remedy for lice.

2. Mix 1½ ounces sulphate of iron and sulphate of copper and tartar emetic and 1 ounce of calomel. Make into 12 powders and give a powder night and morning in damp feed, after which give 8 drams aloes and 2 drams ginger.

Collecting Damages.

A sells a heifer to B; B sells it to C, and inside of two months C kills her, claiming that she has tuberculosis. Is A or B liable? Would C have to prove that the heifer was affected when he bought it? Should suspected animals be inspected by a veterinarian? — J. D.

Ans.—In many cases it is difficult to tell from general appearances whether an animal is affected or not. Many breeders to-day purchasing animals stipulate that they are subject to tuberculin test. If the heifer appeared healthy when C purchased her, and no guarantee of health was given, C would not have a strong case in regard to collecting damages.

Cords of Wood in a Pile.

How many cords of pulp wood would a pile 89 feet wide, 24 feet long and 4 feet high contain?

2. I have 24 hens which did not lay all summer, but started about two weeks ago and then quit. What is the cause? — J. B. P.

Ans.—1. Figuring as cord wood the pile would contain about 69 cords. We believe, however, that pulp wood is cut in 2-foot lengths, and in this case there would be 138 cords of 2-foot wood.

2. It is rather difficult to account for the hens not laying during the natural season. It may have been due to the breeding or to improper care. It is not unusual for birds to start up in the fall and lay for a few weeks and then quit, especially if a cold spell sets in. A good deal depends on how the birds are fed and looked after. Besides grain, they must have a certain amount of green feed and meat feed. Failure to supply the latter two keeps down the egg supply.

Meadow Lawn Shorthorns.

Shorthorn breeders wishing to secure heifers of the highest standard of excellence, combined with popular Scotch breeding, will find it to their advantage to see what is being offered at Meadow Lawn Farm, owned by F. W. Ewing, Elora, Ont. The heifers are sired by Escana Ringleader, said by many to be the greatest son of Right Sort Imp. He is one of Canada's best bulls and the calves sired by him are ample proof of his value as a sire. Among the heifers is Meadow Lawn Dawnside, a low-set, thick, smooth, fifteen-months-old Claret heifer. She looks good enough to be a winner in any company. Another is a sixteen-months Stamford heifer, which is also low-set, smooth and remarkably thick. There is also a Martha and a Wimple heifer, which are both promising breeding propositions. There are a number of straight, smooth bulls, among them a Claret which is white. If interested write Mr. Ewing, Elora, for particulars.



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Shorthorns Landed Home—My last importation of 60 head landed at my farm on June the 20th, and includes representatives of the most popular families of the breed. There are 12 yearling bulls, 7 cows with calves at foot, 24 heifers in calf, of such noted strains as Princess Royal, Golden Drop, Broadhooks, Augusta, Miss Ramsden, Whimble, etc. Make your selection early. **GEO. ISAAC, (All railroads, Bell 'phone.) Cobourg, Ont.**

Pure Scotch and Scotch Topped Shorthorns

We have several choice young bulls of the best of breeding and ready for service. Two are by Rapheal (imp.), one by Right Sort (imp.), one by Sittytown Selection, and several by our present herd sire, Newton Cedric (imp.). Prices write. **R. M. MITCHELL, Freeman, Ont., R. R. No.**

Shorthorns Herd headed by Pride of Escana, a great son of Right Sort. Several bulls and a few females with calves at foot for sale. Herd of over seventy head. **A. G. FARROW (between Toronto and Hamilton) OAKVILLE, ONT.**

SPRING VALLEY SHORTHORNS

We sell or exchange for females. Nonpareil Ramsden =83422=, we have used him five years. He is an extra good sire. We also have for sale Village Ramsden =122762=, winner of 2nd at London and 3rd at Winter Fair. Will price a few females. **KYLE BROS., DRUMBO. (Phone and Telegraph via Ayr.)**

GLENGOW SHORTHORNS

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.**

Two Dual-Purpose Shorthorn Bulls

red and roan for sale. From dams that are making good record in official test. Grand dam, of roan, second in her class in R.O.P. 1917. These bulls are sired by a bull whose dam made high record, and grand dam held championship for three years. Write for further information. **D. Z. GIBSON, CALEDONIA, ONT.**

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Have a few choice bull calves left. See these before buying elsewhere. Also six Clyde Mares and fillies rising one to 6 years of age. Each by imported sire and dam. **WM. D. DYER, R. No. 3 Oshawa 2½ miles from Brooklin, G.T.R., 4 miles from Brooklin, C.N.R. or Myrtle, C.P.R.**

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Mysies, Rosemary's, Clementinas, Missie, Miss Ramsdens, Cruickshank, Fragrance, etc., all good pedigrees and all good breeding cattle in calf to young bulls. Prices right. Also a few bull calves. Correspondence solicited. **JAS. K. CAMPBELL & SONS, PALMERSTON, ONT.**

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Extra choice heifers, best Scotch breeding, 2 senior and 3 junior calves, 1 choice 12 months bull calf. They'll fill the bill. **MEADOW LAWN FARM. F. W. EWING, R.R. No. 1, ELORA, ONT.**

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WHITE SCOURS BLACKLEG

Your Veterinarian can stamp them out with Cutter's Anti-Calf Scour Serum and Cutter's Germ Free Blackleg Filtrate and Aggrassin, or Cutter's Blackleg Pills.

Ask him about them. If he hasn't our literature, write to us for information on these products.

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Ship yours to us, as we must have it to supply our well-established trade with good quality butter. Therefore, we are prepared to pay you a higher price than any other creamery. We furnish cans and pay express charges. References, any bank.

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Mardella Shorthorns

Herd headed by The Duke, the great, massive 4-year-old sire, whose dam has 13,599 lbs. of milk and 474 lbs. of butter-fat in the R. O. P. test. I have at present two exceptionally good, young bulls ready for service, and others younger, as well as females all ages. Some are full of Scotch breeding, and all are priced to sell. Write or call.

Thos. Graham, R. R. No. 3, Port Perry, Ont.

Creekside Shorthorns

Herd headed by Gainford Count out of a Stamford cow and by the great Gainford Marquis (imp.). He is a choice, thick, 21 month's youngster, out of high-record cows; also a few females, and one extra good yearling Clyde stallion; also a good two-year-old mare. Write me for anything in Shorthorns.

GEO. FERGUSON - ELORA, ONTARIO

THE HAWTHORNE SHORTHORNS AND LEICESTERS

Six extra good bulls to offer, and could spare a few females. Royal Choice - 79864 - at the head. Clydesdale fillies and Leicester sheep. Priced to sell.

ALLAN B. MANN,
"The Hawthornes," Peterboro, R. R. 4.

For Sale—Three Shorthorn Bulls

Also two registered Clyde mares.
GEO. A. McCAGNE
R. R. 2 - Gormley, Ont.

Shorthorns and Clydesdales—We have a number of Shorthorn bulls which are pure Scotch and Scotch-topped; extra good quality, out of high-record cows; also a few females, and one extra good yearling Clyde stallion; also a good two-year-old mare. P. CHRISTIE & SON, Port Perry, Ont.

Shorthorn Bulls for Sale—Eight young bulls of serviceable age. Sired by the imp. bull Donside Prince 101809.

WM. GRAINGER & SON, Auburn, Ont.

FOR DUAL - PURPOSE SHORTHORNS

Also DORSET-HORNED SHEEP, I am offering 6 young bulls and 20 ewe lambs. Apply VALMER BARTLETT, R. R. 4, Canfield, Ont.

Maple Leaf Farm Shorthorns—A high quality Miss Ramsden bull calf and Scotch bred females for sale. Shropshires—Some good ewe lambs. JOHN BAKER, R. No. 1, Hampton, Ont. Bell phone. Solina, C. N. R.; Bowmanville, G. T. R. and C. P. R.

SCOTCH SHORTHORNS FOR SALE
Silver Count (imported in dam) calved March 16th, 1916. A yearling bull by Silver Count, also a choice offering in cows and heifers. Imported and Canadian bred. Write or come and see. A. & G. Forbes, R. R. 2, West Montrose, Ont.

Lechabar Stock Farm is offering a good 16-month-old bull; light roan, Scotch bred. Freight paid and priced right.
D. A. GRAHAM
R. R. No. 4 - Parkhill, Ontario

Evergreen Hill Farm R.O.P. SHORTHORNS

Offering two bulls 12 months' old by St. Clare, R.O.P. No. 5. S. W. Jackson, Woodstock, Ont.

SHORTHORNS

Present offering, 6 choice young bulls and a few females, their dams are good milkers and best of breeding. Prices moderate.
Stewart M. Graham, Lindsay, Ontario.

Questions and Answers. Miscellaneous.

Weight of Mangels.

How many pounds of mangels are there in a bushel? H. D.

Ans.—In the official weights of vegetables we have not noticed the weight of mangels given, but turnips and beets are 50 lbs. to the bushel. We presume that mangels are the same.

Sweenyed Horse.

I have a colt which was sweenyed in one shoulder when working on the plow last fall. I have been advised to apply home-made soft soap as a treatment. To date it has given no apparent results. What treatment would you advise? F. D.

Ans.—It may take a considerable time to effect a cure. Treatment generally consists in applying a blister of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces of vaseline, to stimulate the development of the muscles. It may require several applications. After each one, it is well to apply sweet oil to the parts.

Lumps in a Hen.

I killed a hen and found small lumps about the size of plums, which were of a watery nature, and resembled small eggs. The hen was extra fat and appeared healthy. C. H. C.

Ans.—It is not stated where these lumps were found. It is possible that they are the yolks of eggs, which will be found from the size of a pea up to the full-sized yolk in old hens. If these yolks are about full size it is an indication that the hen would be soon laying. The lumps may be due to a growth on certain parts of the anatomy. However, without fuller description we are unable to give a definite answer.

Feather Pulling.

My hens started to eat each other. They eat the feathers and pick holes in the flesh. I feed them a mixture of wheat, oats, barley and buckwheat, also potato and apple peelings from the house. They have access to gravel and oyster shell. What is the cause and prevention for this-trouble? J. F. H.

Ans.—This is a vice which is very often started owing to the lack of some substance in the feed or to too close confinement. Once it starts it is very hard to control. The guilty birds should be removed from the pen and it may be necessary to destroy them. Meat feed should be included in the ration. This along with green feed will go a long way towards preventing the trouble. However, once the habit becomes started it may be difficult to control it. If the birds are crowded, give them larger quarters.

Spraying Trees—Scratches.

Is Gillette's lye effective on San Jose Scale and Oyster Shell bark louse? Is it all right to spray at this time of the year? How much Gillette's lye should be used to 40 gallons of water?

2. Would you advise giving carbolic acid to horses troubled with scratches or eczema?

3. Would you advise clipping the hair off a hairy legged horse? A. S.

Ans.—1. Gillette's lye would no doubt be effective on San Jose and Oyster Shell, although lime sulphur is preferable. The concentrate spray may be put on most anytime, but we believe it is generally considered best to wait until spring. Three tins of Gillette's lye to a barrel of water should be effective. However, as it is so little used for this purpose we we cannot give the minimum amount which proves effective.

2. We doubt the advisability of feeding carbolic acid for the trouble mentioned. It would be better to use some other material to put the animal's blood in good condition, and then treat the scratches or eczema with external applications. If the scratches are very bad they might be poulticed with linseed meal and charcoal and then dressed with a lotion made of 1 ounce each acetate of lead and sulphate of zinc to a pint of water. For eczema dress twice daily with a five per cent. solution of one of the coal-tar antiseptics. For both these troubles it is well to give 8 drams aloes and 2 drams ginger, provided the mare is not in foal.

3. It is not considered good practice to clip horses' legs.

IMPORTANT

The Third Annual Sale of Registered Stock of The Lambton County Pure-Bred Live-Stock Breeders' Association, Market Square, Petrolia, Ont.

on FEBRUARY, 6th, 1919 at 1 p.m. sharp.

60 head of choice cattle, consisting of Shorthorn and Aberdeen Angus, bulls, cows and heifers.

In Shorthorns such well known families as Rosemary, Carnation, Winsome, Mar Rachel, Lancaster and Jealousy are represented.

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Imp. Collynie Ringleader
(Bred by Wip. Duthie)

Imp. Clipper Prince
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Imp. Orange Lord
(Bred by Geo. Anderson)

We are offering a large selection in imported females with calves at foot or in calf. A few home-bred females, 19 imported bulls and 8 home-bred bulls, all of serviceable age. If interested, write us, or come and see the herd.

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Burlington Jct., G.T.R., half mile from farm. Phone Burlington.

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are market toppers from baby beef stage to maturity, grow quickly, fatten rapidly, have high dressing percentage and abundant milking qualities.

DOMINION SHORTHORN BREEDERS' ASSOCIATION
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Herd headed by Dominator 106224, whose two nearest dams average over 12,000 pounds of milk in a lactation: cows with records up to 11,000 pounds of milk in a year. Bulls from three to ten months of age, also heifers and cows for sale. Weldwood Farm, Farmer's Advocate, London, Ont.

DUAL-PURPOSE SHORTHORN BULL

Sired by Royal Duke 2nd - 102332. Dam is Lavinia Duchess - 64347. He is 12 months old, and a deep red, well-proportioned fellow. Also a fine, square, deep roan bull, sired by Britannia Count - 99437, whose dam is Lythmore Ruby - 99344. He is 2 years old. For further information and price, write to FRED NICHOLAS, CALEDONIA, ONT.

PEART BROTHERS SHORTHORNS

We are offering our Scotch Bred herd sire Nonpareil Counsel 96931, also ten young bulls of his get practically all ready for service, from cows of both beef type and dual-purpose, one of which has qualified in R.O.P. Prices reasonable. Inspection invited. Pleased to meet trains at Hagersville M. C.R., Caledonia G.T.R. PEART BROS., Phone 78-16, Caledonia, Ont., R.R. No. 3

60 Shorthorns 60—Bulls—During next few weeks we will sell bulls of serviceable age at a big sacrifice, to make room. Near a dozen good ones to choose from. Can spare near a carload of fine females, mostly sired by Scotch Grey 72692, a champion and sweepstakes bull.

JOHN ELDER & SON, Hensall, Ont.

SHORTHORNS and CLYDESDALES

Herd still headed by Proud Victor - 102587. For Sale—One red, 20-months old, and eight 10-months-old choice reds and roans. Also females of all ages.

J. B. CALDER - GLANFORD, STA. R. R. 3

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 man that wants to start right in Scotch Shorthorns. They will be sold for a low price, considering the quality, and the freight will be paid.

Write for anything in Shorthorns. One hour from Toronto.

Walnut Grove Shorthorns—Trout Creek Wonder 56167. Gainford Eclipse 103055. We are offering an exceptionally choice lot of bulls and heifers from the best Scotch families, and our herd sires, Trout Creek Wonder and Gainford Eclipse. If interested, write Twelve miles west of St. Thomas. DUNCAN BROWN & SONS, Bell. Phone. M.C.R. and P.M.Ry. Shedden, Ont.

6 BULLS BY ESCANNA FAVORITE

A son of the famous Right Sort (imp.). All are ready for service and priced to sell. We have others younger and could spare a number of young cows calving early to the service of the same sires. Write, don't delay. W. G. GERRIE, Farm at C.P.R. Station, Bell Phone Fergus. Bellwood, Ontario.

THREE-YEAR-OLD SHORTHORN BULL

Sultan Butterfly, Grand Champion winner, Ottawa, 1918, and sired by the great Browndale. This bull is a tried and proven sire, guaranteed right and priced right.

PRITCHARD BROS. R. R. No. 1, Elora, Ontario

A FEW SCOTCH SHORTHORN BULLS

Several are old enough for service and all are got by a grand son of the great Superb Sultan. Individually they are strong enough to head the best of herds, and the breeding is unexcelled. Write us also for anything in Shropshires or Clydesdales.

ROBERT DUFF & SON, R.R. Stations C.P.R. - G.T.R., Myrtle, Ont.

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No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use Fleming's

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Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

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Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

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Milking Shorthorn Cattle,
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We offer animals that will raise herds to a level of wartime efficiency. Bull calves from \$125 up.

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MAPLE SHADE

Shorthorns

Young bulls sired by "Archer's Hope." Ten imported bulls. Best Scotch breeding.

WILL. A. DRYDEN

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English Dual-Purpose Shorthorns

Young bulls fit for service and bull calves. A choice and highly bred collection from imported stock on both sides. The right kind to increase the flow of milk, in any herd.

English Large Black Pigs. A great breed. Approved where tried. Come or write.

LYNNORE STOCK FARM

F. Wallace Cockshutt, Brantford, Ont.

Dual-Purpose Shorthorns

Plaster Hill Herd offer

Two bulls 10 and 20 months; one whose dam gave 11636 lbs of milk in eleven months. These are good individuals. Could spare a few females. Herd headed by Green Leaf Record = 96115 = and Dictator whose two nearest dams average over 12000 lbs in R.O.P. test. Long distance telephone connection.

Ross Martindale - R.R. 3, Caledonia, Ont.

DUAL-PURPOSE SHORTHORNS

I am offering five choice bulls from 10 to 12 months old. Their Grandam a Mina Gem, has a R.O.P. of over 10,000 lbs. Quality and satisfaction guaranteed.

E. R. WOOD, Freeman R.R. 2, Burlington St.

BULLS BULLS BULLS

I have for sale 4 very high class Shorthorn bulls, 2 yearlings and two years old. These bulls are to be sold immediately, and the price will be right. Don't over look this chance. Barred Rock Cockerels, \$5.00 apiece. S. Dymont, Barrie Ont.

Graham's Dairy Shorthorns

I have a choice offering in cows and heifers in calf. Bulls from the heaviest milking strains. Satisfaction guaranteed.

Charles Graham, Port Perry, Ont.

Questions and Answers.

Miscellaneous.

Thrush.

I have a horse that is lame from thrush. What is the treatment? J. W. H.

Ans.—Clean out the affected parts thoroughly and then fill with calomel. This has resulted in a cure. Some use formalin in place of calomel. It is advisable to remove the cause, which in many cases is from a horse standing in a wet stall or on wet soil.

Tons of Hay in Mow.

How do you figure the number of tons of hay in a mow? B. G.

Ans.—It is generally estimated that 450 cubic feet of settled hay will weigh a ton; therefore it would be necessary to find the cubical contents by multiplying the length by the breadth by the depth and then dividing by 50 to get the number of tons.

Drain From Milkhouse.

I have a milk house from which there is a drop of 2 feet. I have an under-drain within a rod of it. If I connected the milk house with this drain would it have a tendency to lower the temperature of the milk house? J. P.

Ans.—We cannot see how the drain would affect the temperature of the milk house in any way. It would merely be a means of getting rid of the water.

Indian Runners.

To what age is it profitable to keep Indian Runner Ducks for laying purposes? J. W. C.

Ans.—The data that I have would indicate that two years would be about the limit for profitable egg production from Indian Runner Ducks, and the majority of the growers of Ducks, for this purpose, with whom I have conversed, are rather of the opinion that one year is more profitable. We have not had sufficient personal experience with them to be able to give an opinion of our own. W. R. G.

Fertilizing a Garden.

Does it pay to use a fertilizer on the garden, and if so what kind and how should it be applied? J. N. P.

Ans.—Crops grown in the garden usually respond to liberal fertilizing. It is necessary that the soil be filled with humus and there is no better way of incorporating this is the soil than by plowing under barnyard manure. Special mineral fertilizers may be used to advantage with certain crops; for instance, nitrate of soda applied at intervals through the season forces the crop. For tomatoes and similar crops phosphates in the form of ground bone, or ground rock, is beneficial. Potatoes respond to applications of potash. The phosphates of potash are usually applied previous to or at the time of planting. Nitrate of soda leaches readily, therefore it should be applied during the growing season.

Cement and Gravel for Wall.

1. I am planning on building a barn 38 by 66 feet, with a horse stable 22 feet wide across the east end, the remainder to be cow stable and root cellar. The cow stable is to occupy a space 19 feet wide on the south side, and also 19 feet long on the north side, the south and end walls to be 3 feet high of concrete; the north wall 8 feet high. I am planning on a mixture of one part cement to two parts sand and four of gravel. How much material will be needed?

2. Where can I get Henry's "Feeds and Feeding," and "Farm Management," by Warren. B. J. H.

Ans.—1. For the walls and floor, mixing in the strength you mention and making the wall 1 foot thick, it will require 59 cubic yards of gravel and 67 barrels of cement. We do not know whether you were considering a footing for this wall. We believe it necessary. A footing about 18 inches wide and 18 inches deep should prove satisfactory. If the ground is soft, the foundation should be deeper to be safe. For a footing of the dimensions above mentioned it will require about 15 cubic yards of gravel and 17 barrels of cement. Quite a few small field stones could be worked into the footing.

2. "Feeds and Feeding," by Henry, can be secured through this office for \$2.50. "Farm Management," by Warren, can be secured for \$1.95.

Important Notice

REGARDING THE
ELLIOTT SALE OF

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The Greatest Sale of Show and
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Every animal has been carefully tested, and is guaranteed to pass re-test in sixty days, and not later than sixty-five days, from date of original test. Such re-test to be conducted by Canadian Government Inspector or United States Federal Inspector or authorized State Veterinarian.

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Sale at Guelph, Ontario

Friday, Feb. 7th, 1919

Following the Toronto Combination Sale, Feb. 5, and the Mercer-Curry Sale, Feb. 6. (Both sales at Union Stock Yards, Toronto.)

For catalogues write

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1919

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We have for sale a number of young bulls fit for service and a few choice heifers. JAMES McPHERSON & SONS DUNDALK, ONTARIO

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Toronto, Ontario, Wednesday, February 5th, 1919

Listing Fifty-five Lots of Imported and Canadian-bred Shorthorns,
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Other sales in this series: Mercer & Curry on the 6th, J. J. Elliott on the 7th.

Questions and Answers. Miscellaneous.

Grain for Hogs.

Which is the better grain for fattening hogs, buckwheat or barley? If the buckwheat were heated slightly in the bin, would this impair its feeding qualities?

2. What is a good condition mixture for hogs?

3. My horses are in good condition but are itchy at the base of the mane and over the tail. What is the cause and cure?

4. Are hogs going lower in price? Would it pay to sell now or wait a month?
J. G. H.

Ans.—1. Neither should be used by itself. Barley is possibly preferable. Some authorities claim that buckwheat fed in excessive quantities produces an inferior quality of bacon. Mixed with oats, corn or shorts, either feed would give good results.

2. A very good condiment for pigs is a mixture of 25 lbs. of charcoal; 1½ pails of salt; ½ bushel of ashes and 4 lbs. of sulphur.

3. It is possible that the horses are affected with vermin, which may be removed by using one of the coal-tar products, or a mixture of one part hellebore to four parts cement. If the animals are free from vermin it may be that they are suffering from eczema. If they are, pimples will form. Purge the animals with 8 drams aloes and 2 drams ginger, and follow up with 1 ounce Fowler's solution of arsenic twice daily for a week. Dress the parts with a warm five per cent. solution of one of the coal-tar antiseptics. Keep the animals warm and comfortable after each dressing.

4. We cannot prophesy what the markets will be in the future. Judging from reports regarding the hog population of Europe, there is reason to believe that our markets should be good. At the present time there is a somewhat depressed hog market. As to how long this will last we cannot say. We have generally found that to market the hogs when they reach around 200 lbs. is safer in the long run than holding them. If the market should be depressed there will be

THE LAST CALL—REMEMBER THE

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OF BREEDING

Shorthorns

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Forty choice breeding cows—a proven lot.

Thirty young cows with calves by their side.

Eight cows due to freshen in March and April.

Twelve open heifers, including show material.

Fifteen promising bulls, from nine to twenty months.

A breeding lot throughout. Pedigrees unexcelled in the Dominion.

Every animal listed an assured investment.

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THOS. MERCER, Markdale, Ont.

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Auctioneers: CAREY JONES, TOM. ROBSON.

Toronto Combination Sale of Shorthorns Feb. 5th (same pavillion)

Breeders wishing to attend the J. J. Elliot sale at Guelph on Feb. 7th, may leave W. Toronto same evening of sale.

more or less discrimination in the case of light and heavy hogs.

Sweet Clover.

I understand that sweet clover is cultivated in some localities for pasture. I desire some information regarding the cultivating and growing of this crop.
A. E. M.

Ans.—A number of men are finding sweet clover very satisfactory as a pasture crop. It gave good results on Weldwood Farm last summer, and furnished a greater bulk of feed than we have been able to secure from the other clovers and grasses. We would prefer it as a pasture crop to cutting and curing it for hay. The seed may be sown with a nurse crop, the same as red clover. It will give some feed in the fall and is at its best the following year. When cutting for hay, care must be taken to raise the cutting-bar of the mower sufficiently high to leave some new shoots on the stalk. Cutting should commence quite early in the season, in order to avoid the hay being coarse and woody.

Lice—Worms—Scratches.

My cattle and colts are troubled with lice. What treatment do you advise?

2. What is the best remedy for a horse suffering from worms?

3. My colt has the scratches. What treatment do you advise?
A. R.

Ans.—1. Mix cement and hellebore in the proportion of four parts of the former to one of the latter and dust along the backs of the animals. Do not turn out in the wet for several days after applying this mixture.

2. Mix 1½ ounces sulphate of iron, sulphate of copper and tartar emetic, and 1 ounce of calomel. Make into 12 powders and give a powder night and morning in damp feed. If the mare is not in foal give 8 drams aloes and 2 drams ginger.

3. Applying a lotion made of 1 ounce each of acetate of lead and sulphate of zinc in a pint of water usually gives results. If raw surfaces are present, it might be well to poultice with warm linseed meal and a little powdered charcoal for two days and nights.

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Information from the HOLSTEIN-FRIESIAN ASSOCIATION
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Secretary, W.A. Clemons, St. George, Ont.

Holstein Bulls

Ready for service and younger. Cows and heifers bred to ORMSBY JANE BURKE, whose two nearest dams average 38.82 lbs. of butter in 7 days. The three nearest sires' dams and his dam's records average 35.69 lbs. for 7 days, and 112 lbs. milk for one day.
R.M. Holtby, R.R. 4, Port Perry, Ont.

Questions and Answers.

Miscellaneous.

Selling Straw.

A sold his farm to B. Nothing was said in the writings about the straw. Can A sell the straw? G. E. J.

Ans.—We can see no reason why A could not dispose of the straw when there is nothing in the writings to the contrary.

Churning Cream.

I have seen frequent enquiries regarding cream not gathering. Now I do not know why it doesn't, but from experience I have found out that when there are no fresh cows in the herd we frequently have the trouble. Scalding the cream each time after separating and then adding to the cream crock when cold, and allowing the cream to ripen results in the butter coming in about 20 minutes.
MRS. W. B. S.

Note: The scalding is a similar principle to pasteurizing, which has on different occasions been recommended in these columns as a remedy for cream not gathering. Scalding very often gives a flavor which is objectionable to many consumers. Scalding or pasteurizing destroys certain germs working in the cream and the addition of a starter gives the proper condition for the ripening of the cream.—EDITOR.

Poultry House.

What is the rule for measuring a stack of hay?

2. I was thinking of building a poultry house 12 feet wide and 50 feet long. Would a wider house be preferable? I was thinking of putting in a concrete foundation and floor, with 6 feet from the sill to the plate, and with windows on the south side only. Would windows every 3 feet be sufficient? I purpose putting on a gable roof, giving room for storing straw above to take away the dampness. Would you advise putting a passageway down one side or is it wasting room? Would matched lumber be warm enough?

3. Would you advise sowing spring wheat on a field that was plowed out of sod in 1918 and sown to peas? I could fertilize it with well-rotted manure.

J. H.

Ans.—1. For hay that is settled about 450 cubic feet is generally estimated to weigh a ton. To find the number of cubic feet in a circular stack, multiply the area of the bottom by the height to where the stack commences to slope. For the conical top, multiply the area of the base where the stack starts to slope by one-quarter of the height.

2. With regard to the hen house, we believe you would find it more satisfactory to make a deeper pen. It would be better for either a gable or a shanty roof. On a large poultry farm which we visited some time ago, the shanty-roofed pens were in use. They were about 18 feet deep, 5 feet high at the back and the front was about 9 feet high. The building was divided off into pens 18 to 20 feet across, thus making them practically square. A solid partition was put between each pen as far out as the roof extended and the bottom of the partition was boarded up 18 inches and then wire used on top. This solid portion of the partition was to prevent drafts, which invariably occur where the pen is longer than it is wide. One-third of the front was in glass; one-third cotton, and the other third boarded up. The sun shone to the back of the pens. There was no complaint of dampness on the roof or anywhere in the pen when the above proportion of glass and cotton was used. It will be found easier to keep the pen clean if a concrete floor is used. Matched lumber on the ends and double boarding at the back should be satisfactory. Where the gable roof is used, it will be found that straw will absorb moisture and help to keep the pen dry. Whichever style of pen is built, it is well to have the south side in cotton, glass and boards. Many board up the bottom third of the front and then alternate glass and cotton throughout the entire length. The passageway the entire length of the pen is a waste of space. Where each pen is connected by a door the passage is not necessary, nor is an outside door necessary to each pen.

3. Spring wheat should do all right on the soil mentioned.

How will this one Suit

Bull calf mostly white and out of one of the greatest if not the greatest cows of the breed namely, Jenny Bonerges Ormsby. There are cows with higher seven-and-thirty-day records, but when you consider that she held the world's record in the yearly work, for three years as a two year old. And when you consider that she is the only cow in the world that has made over thirty pounds of butter a week for five consecutive years it puts her in a class by herself. The sire of the calf is Canary Mercedes Pietertje Hartog the 7th, his dam gave 115 pounds milk a day and made 34.60 pounds of butter a week. This bull sired the Grand Champion bull at Toronto last year.

D. C. Flatt & Son - R.R. 2, Hamilton, Ont.

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\$175 UP A 38-LB. SIRE

THINK of it! Sons of such a sire at such a price. And from tested dams too. Better hurry a card off to us and have us explain further this seemingly impossibility.
We also have a good son of our senior sire and from a 24-lb. dam. Price, \$150. He is ready for light service.

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Offers—One 30-lb. bull, and several grandsons of the great King Segis. Two of these are ready for heavy service. We also have a number of heifers of same breeding—all from approved dams.

JOSEPH KILGOUR, - Eglinton P.O., Ont., North Toronto.
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For Sale: Two extra good (30-lb.) thirty-pound bulls ready for heavy service. Priced to sell. Also younger ones by a son of May Echo Sylvia.

R. W. E. BURNABY - JEFFERSON, ONT.

Farm at Stop 55, Yonge St. Radial

HOSPITAL FOR INSANE

HAMILTON - ONTARIO

Present herd sire is one of the best sons of King Segis Alcartra Spofford; we have three of his sons born during May and June last, and also a grandson of Lakeview Lestrage. Apply to Superintendent.

Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of \$12,750 Het Loo Pietertje) and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. These youngsters should not remain long. Write to-day.

Raymondale Farm, Vaudreuil, Que.

D. RAYMOND, Owner
Queen's Hotel, Montreal

33-lb. Grandsons of Lula Keys

I have at present ten young bulls all sired by my own herd sire King Korndyke Sadie Keys a son of Lula Keys 36.05 lbs. of butter and 785 lbs. of milk in 7 days. These youngsters are all first-class individuals and their dams' records run as high as 33.29 lbs. of butter in 7 days. Several of them must go quick to make room.

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Offers for sale some choice young bulls ready for service from tested dams. Priced right for immediate sale. Phone or write

GRIESBACH BROS. - COLLINGWOOD, ONT.

Silver Stream Holsteins—We are offering a choice lot of young bull calves all sired by King Lyons Colantha, only one of serviceable age on hand at present. We also have some richly-bred young cows due to freshen soon to offer. Write us what you want, or better come and see them.

JACOB MOGK & SON, R.R. 1, Tavistock, Ont.

HOLSTEINS—A few choice cows and heifers, either fresh or due to freshen soon; also three young bulls, including the first-prize senior calf at Guelph, last December.

W. J. BAILEY, Jarvis, Ontario

Alluvialdale Farm Holstein Friesians

I am offering for sale—Several young tested cows to freshen in Feb. Bred to Sir Gelsche Walker, whose 7 nearest dams average 30 lbs. butter in 7 days. Also young bulls 8 months old from above sire and tested dams. T. L. Leslie, Norval Station, Ont.

Riverside Holsteins---Choice Bulls

We have several 10 months old, from dams with official records up to 100 lbs. of milk per day and 32.32 lbs. of butter in 7 days. These are well marked and straight individuals. Inspection invited.
J. W. RICHARDSON, CALEDONIA, ONTARIO

ORCHARD LEIGH HOLSTEINS

Present offering—3 young bulls ready for winter service. Good individuals with good R. O. M. and R. O. P. backing. Also one good March calf. Write or better come and see them.

JAS. G. CURRIE & SON, (Oxford County) Ingersoll, Ont.

Sunnyside Stock Farm Holsteins—Echo Segis Fayne, our herd sire, is by a brother of the world's 50-lb. cow, Segis Fayne Johanna. He is a grand bull in every way, and is not yet 4 years old. To avoid in-breeding would sell him at a price. Also have bulls from 1 month to 17 months old for sale, sired by Echo Segis Fayne and out of grand producing cows.

JOHN M. MONTLE, Prop., Stanstead, Que.

Questions and Answers.
Miscellaneous.

Calf Fails.

What was the matter with my calf which was in good condition when it went to pasture, but came in very thin, had a poor appetite and is inclined to scour?
P. W.

Ans.—From the description given, it is difficult to diagnose the case. The scours indicate impaired digestion. The emaciated condition might result from this or from tuberculosis. If the latter, little can be done. A tuberculin test would reveal whether the animal was diseased or not. For weak digestion, a little lime water might be given to advantage, and the animal carefully fed on the best quality of feed available.

Mange on Dog.

What treatment do you advise for mange on a dog?
J. W. D.

Ans.—There are several forms of mange. The predominant object in treatment is the destruction of the parasite; therefore it will be necessary that several treatments be given at intervals of two or three days for possibly two weeks, in order to cover the period of incubation of the eggs. Before applying the treatment, the hair should be clipped and the skin washed with soap and water. It may be necessary to use a scrubbing brush in order to remove the scurf. A sulphur ointment, consisting of one part sulphur to three parts lard, sometimes proves effective. One part creosote, 20 parts linseed oil and 30 parts soap solution is another remedy which is recommended.

Tuberculosis.

During the winter a number of my hens have died from what seems to be a new and peculiar disease. The birds become a little lame but appear healthy, gradually they become white around the heads and lose in weight. What is the name of this disease?
L. R.

Ans.—The symptoms are undoubtedly those of tuberculosis, a disease which it is almost impossible to cure. Isolate the diseased birds; in fact, it would be better to kill and bury them. Thoroughly clean and disinfect the house and yard. Put lime on the ground. Give the birds plenty of fresh air and keep them out of a draft. Feed well. Be careful when introducing birds to the flock that they have come from healthy flocks.

Heifer Out at Pasture.

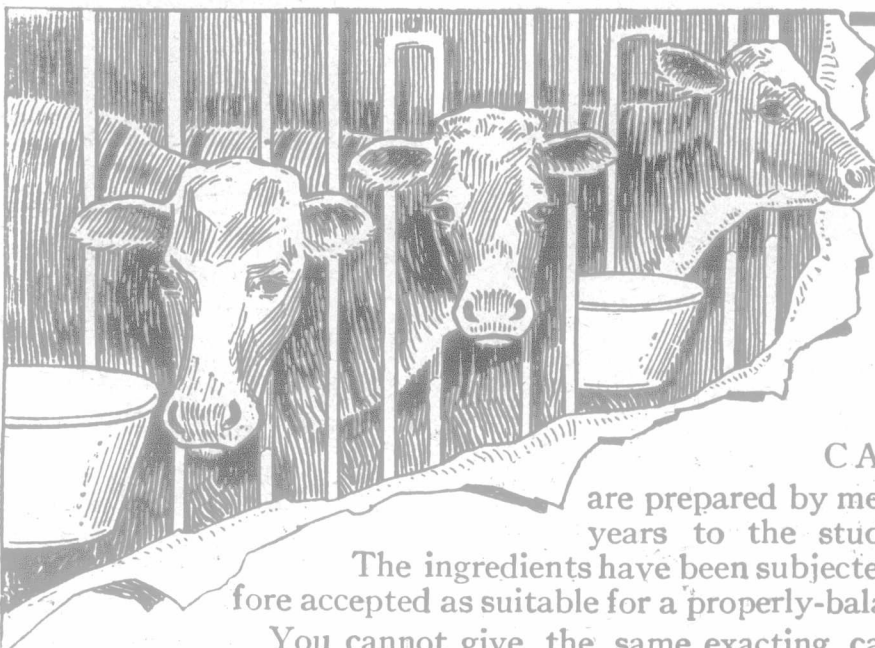
I put a valuable heifer out to pasture at a neighbor's. When I went to see her in a month's time I noticed that a calf had been sucking one teat. I brought her home and as her udder was badly swollen I treated it until the swelling went down. She freshened a few days ago but that teat gives no milk. Can I compel the neighbor to pay damages? What treatment do you advise?
J. W. R.

Ans.—It depends on the agreement. Very often animals are taken in to pasture at the owner's risk. If this is the case, you would have little grounds for collecting damages. If you have used the milk tube in the teat and cannot secure any milk, it is doubtful if anything can be done. The use of this quarter is lost for this year. It is possible, however, that it might come all right the next lactation.

Inspection of Hogs.

Do farmers have to pay for inspection of hogs?
D. M.

Ans.—There is no inspection of live hogs, but the dressed carcasses are inspected. F. C. Hart, of the Markets Branch, explains the inspection charge as follows: "It is one agreed on by the Stock Exchange at the market, and is supposed to cover losses due to cattle, hogs, etc., not passing inspection. Previously, if the animal turned out to be tubercular and was condemned at the abattoir they endeavored to recover from the commission men, and the commission men endeavored to recover from the farmer. This resulted in continual difficulty and impossibility of straightening out many of the losses due to condemned animals. The Exchange therefore agreed upon 50 cents for cows, 20 cents each for steers and heifers, and one-half of one per cent. of the value for hogs, being placed against all animals to cover losses due to animals not passing inspection which is carried on after the animals are slaughtered, by the Health of Animals Branch.



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are prepared by men who have devoted many years to the study of animal husbandry.

The ingredients have been subjected to hundreds of tests before accepted as suitable for a properly-balanced ration.

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The milk flow is greatly increased during Winter and Summer, when the cows get Caldwell's Feeds.

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TRY Caldwell's Scratch Feed, Laying Meal, and Chick Feed for Poultry. Also Caldwell's Horse Feed, Chop Feeds, Dairy Meal, Hog Feed, etc.

Manor Farm Holstein-Friesians

If it's a herd sire you want, write me. I have sons of both my senior and junior sires, King Segis Pontiac Posch and King Komdyke Sadie Keyes. All from good record dams. Choice bull calves at present to offer—average for two nearest dams, up to 34.71 lbs. butter to seven days. Correspondence solicited. Visitors welcome.

GORDON S. GOODERHAM, Clarkson, Ont.

Stations: Clarkson and Oakville. Farm on Toronto and Hamilton Highway.

Young Bulls for Sale from R.O.P. champions and dams and sisters of R.O.P. champions, sired by Canary Hartog, and some by a son of Queen Butter Baroness, the dam of two champions in 7-and-30-day tests. We invite inspection, and will meet prospective buyers at G. T. R. or C. P. R. stations—Woodstock or Ingersoll.

WALBURN RIVERS & SONS (Phone 343 L Ingersoll, Independent Line), R.R. 5, Ingersoll, Ont.

Brampton Jerseys at National Dairy Show

At the National Dairy Show at Columbus, Ohio, in October, Brampton Jerseys won among other major awards first for the best five females of the breed, which is perhaps the greatest award which can be won at this the World's Greatest Dairy Show. Among these was Beauty Maid, the champion four-year-old R.O.P. butter cow for Canada. We also bred and owned the dam and imported the sire of the mature champion R.O.P. butter cow for Canada. Why not make your selections from the Brampton herd?

B. H. BULL & SONS - **BRAMPTON, ONT.**

THE EDGELEY CHAMPION HERD OF JERSEYS

Write us about your next herd sire. We now have sons of our present herd sire, Edgeley's Bright Prince who is a son of Canada's champion butter cow, Sunbeam of Edgeley. Pay us a visit. Sunbeam of Edgeley is not the only high-record cow we have. We are pleased to show our herd at all times.

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THE CANADA'S MOST BEAUTIFUL JERSEY HERD
Woodview Farm
JERSEYS
Herd headed by Imported Champion Ronner, winner of first prize with five of his daughters on the Island of Jersey, in 1914, second in 1916, and again first in 1917. We are now offering for sale some very choice bull calves, ready for service, sired by imported bulls and from Record of Performance imported prize-winning cows. Also some cows and heifers. Prices right. We work our show cows and show our work cows.
LONDON, ONT.
JNO. PRINGLE, Prop.

ORKNEY FARM AYRSHIRES

I have a strong offering at present of bull calves out of "Dairymaid of Orkney" and others closely connected with "Milkmaid of Orkney," "Primrose of Orkney" and "Lenore 2nd." Yearly heifers bred to our imported sire, "Dunlop Corolla." Attractive prices quoted for immediate sale. Inspection solicited.

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For a few weeks we will offer a few select young heifers from our excellent herd sires, Netherton King Theodore Imp. and Humshaugh Invincible Peter. All from R.O.P. dams. Also a few choice cows. We still have 4 choice young bulls under 9 months of age. Inspection solicited.
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JOHN DUCK, Port Credit, Ont.

Questions and Answers. Miscellaneous.

Mating Geese.

How many geese should be kept with one gander? W. B.

Ans.—From one to four. Geese are inclined to pair.

Automatic Pistol.

A has a son, B, at the front. B writes A and asks him to purchase an automatic pistol for his use. A makes enquiries at C's hardware store. C did not have the automatic pistol in stock but would order it and forward to A. C forwards a fire arm which A supposed was what he ordered. A forwards same to B who when he receives it writes to A and says that it was a revolver that was sent him and that surely they did not charge him the price of an automatic pistol for that. B expects to return shortly bringing the revolver with him. Can C be made take it back and refund the money? A SUBSCRIBER.

Ontario.

Ans.—Not at this late date.

Champions.

How many championships must a horse win to be called a champion? How many for grandchampion? What are the names of the world's champion stallions of the following breeds: Hackney, Percheron, Belgian, Clydesdale. W. S. D.

Ans.—At our fairs the winners of the various classes of each breed are brought together to compete for the championship. For instance, there may be the aged Clydesdale stallion, a three-year-old, two-year-old, yearling and foal classes, and what the judge considers the best horse of these five classes would be the champion of the breed at that fair. The same horse may be shown at another fair and be defeated for championship. The grand championship is when an animal is the best of several classes. For instance, in the Clydesdale breed there will be the champion of the open class and the champion of the Canadian-bred class, and these two compete for the grand championship. The only way there could be a world's champion is to have champions of different countries compete at some live stock show recognized as bringing out the very best animals of the breed.

Disposing of Farm.

My husband sold our farm over three months ago to a man, we will call him B for convenience. They drew up an agreement shortly after the sale was made. B paid five hundred dollars and my husband signed the agreement. I was not present during the drawing up of said agreement. I never signed it, never knew it was being drawn up by my husband. Now the time is drawing near when I will be expected to sign the deed, can I refuse to sign the deed never having given my consent to the sale or can I be compelled to sign, away my home? The farm has been bought and paid for since we were married I have been working here side by side with my husband for over twenty years to see our home paid for. If I can refuse to sign, off can I and my two children be forced to leave our home by B; and also if I can stay could I be sued for damages by B? B came here last October and did some plowing, I hardly know how much. We are not in debt. It was not a mortgage sale as we owe no one. The agreement which has been drawn up has never been registered. A. I.

Ans.—You certainly can refuse to sign the deed. Your husband, however, is legally entitled to make a deed of conveyance of the lands, subject to your dower. You dower interest being only a right to one-third of the lands, for your life, in the event of your surviving your husband, you would not, in his lifetime, be legally entitled to remain upon the lands so conveyed by him, and the purchaser could have you removed from same. It is very probable, though, that the purchaser would refuse to accept a deed from your husband alone and would insist that he obtain a bar of dower therein on your part and execution of the deed by you, accordingly; and, if your husband can not procure your so joining in the deed, it is altogether likely that, under the agreement, the purchaser would have a right of action against your husband for damages for breach of same. It would seem, therefore, that the matter is mainly in your own hands.

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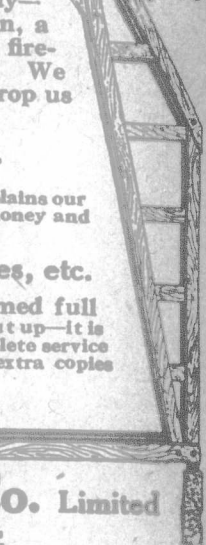
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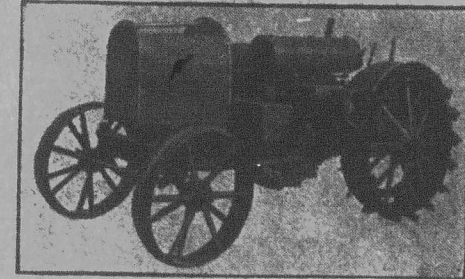
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