

FARM AND DAIRY

The National Dairy Magazine

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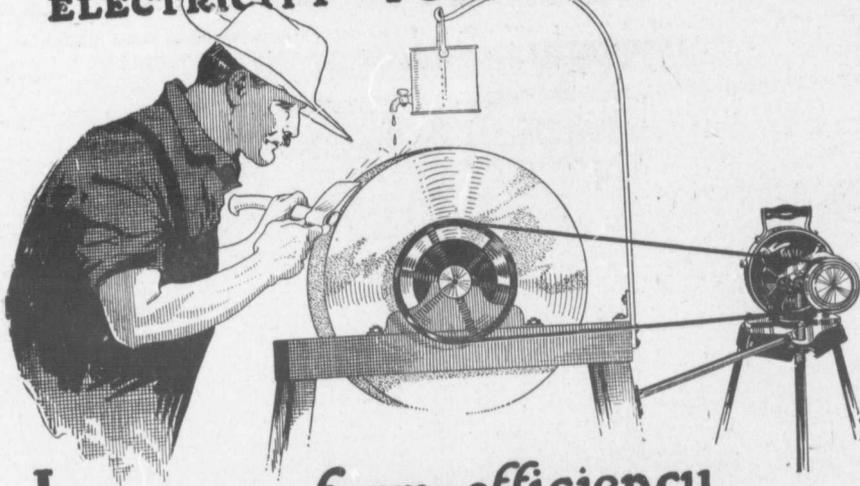


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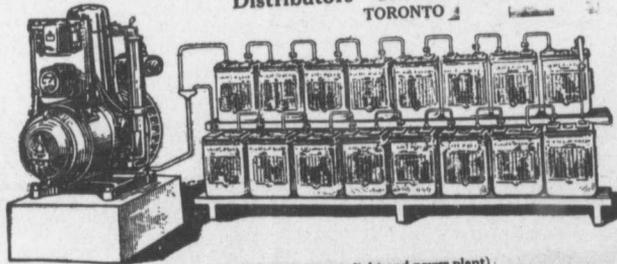


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We Welcome

Trade In

VOL. XX

THE war I think so about at barns to three that is all but like to plow guess that why I have a week. I have ions of this man and that were agreed than those of accurate, four in a big, mat definite in all priced at that are in some not been und That's one o farmer. Eve porters don't eon of opini being overloo in the long r Probably al le-en-filled up problem just patience must have a Boist America. I a discussion of inspiration of by Walter L. Breeders' Ass man. Mr. Ho us. He talks just plain sin The address ended, but a graph Mr. Ho

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M AND M & RURAL HOME

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Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land—Lord Chatham.

VOL. XXXVII.

TORONTO, ONT., NOVEMBER 21, 1918.

NO. 47.

A Farmer Discusses War and Reconstruction

Present Problems Viewed from the Standpoint of the Individual Farmer—By E. L. McCaskey

THE war has come to an end. At least, we all think so and hope so. Fall work, too, is just about at an end. There are only a couple more barns to thresh and our fall plowing is complete; that is all but a five-acre piece of sod that we would like to plow were it not partly under water.

I guess that water on the lower interval explains why I have found so many hours for reading this week. I have had a great time digesting the opinions of this editor and that editor, and this public man and that public man on "what's next." All were agreed that we faced even greater problems than those of the past five years; or, to be more accurate, four and a half years. All tried to talk in a big, national way. All were most amazingly indefinite in all that they had to say. I'm not surprised at that. I have an idea that my own ideas are in somewhat of a state of chaos. So far I have not been under the necessity of expressing them. That's one of the advantages of being a humble farmer. Everything anything big happens the reporters don't come around begging for an exposition of opinion. Sometimes we feel aggrieved at being overlooked, but I guess we are just as happy in the long run.

Probably all the readers of Farm and Dairy have been "lulled up" with "big talk" on the reconstruction problem just as I have. We all agree that great patience must be exercised by all classes or we may have a Bolshevik reign of terror right here in America. I am not deprecating in the least a sane discussion of general principles at this time. The inspiration of this article, however, was an address by Walter L. Houser, President of the Live Stock Breeders' Association, as reported in Hoard's Dairyman. Mr. Houser is a plain farmer like the rest of us. He talks reconstruction in terms of the farm; just plain simple advice from the farm standpoint. The address in question was given before the war ended, but a lot of it still applies. In his first paragraph Mr. Houser talks in the usual terms. He says:

The World on Stilts.

"There will be radical economic changes as the war nears a conclusion and during the period of reconstruction—a period necessarily of considerable length. Already we feel and can plainly see the signs of change that are inevitable when the war is over. Peace talk finds reaction in immediate slump in the price of hogs, sheep, corn, and other agricultural products. Things are so abnormal, so radically unbalanced, relatively speaking, that signs of a break in the war invites and makes certain radical breaks in present economic conditions. In other words, we are high up on stilts and sooner or later many of us will take a tumble and be mussed up unless we wise and prepare a soft landing upon the ground."

That's good common sense. Prices haven't come tumbling yet. The markets apparently anticipated peace and made preparations accordingly. Values were adjusted beforehand to the early peace stage. Conditions are still abnormal. However, over the next two years will see an entirely different state of affairs ushered in. War prices for farm products are going to continue until the world is sure that it won't go hungry. With this preliminary word I give Mr. Houser the platform. Mr. Houser—

A Good Time to Pay Debts.

"It is none too early for the farmer and stockman to begin to prepare for the change. And he can do this and at the same time patriotically conform to the government program. And in doing so he will assist himself in the program of reconstruction and become a potent factor in rebuilding the world."

The American farmer ought to open his eyes and look ahead a little. Just now his business is prosperous unless he is profligate. If conditions were to

remain as they now are, he need not worry. But they will not remain so. He must beat the change or get his fingers pinched when the door slams. He must readjust his affairs when the readjusting is good. How to do it?

"Well, first this is a good time to pay debts. Money is cheap. When the change comes money will be dear and it will be more difficult to pay debts. If a farmer owes \$1,000 he can pay it with 500 bushels of \$2 wheat, or 5,000 pounds of \$20 hogs, or thirty tons of \$33 hay. If he waits until after the war to pay it, it will cost him at least 1,030 bushels of wheat; 10,000 pounds of hogs; 75 or 100 tons of hay, etc. Either pay debts with big war incomes or buy liberty bonds which will be a safe investment and available offset to debts at any time. If not in debt, buy bonds, thus supporting the government and investing your surplus where it will be safe and available, when other lines attractive at normal prices. Get along with the Ford or old car for a time and after the war you will be able to buy a new one at practically half the price now asked. In other words, this is the time to save. You will be justified in going to extremes to save in preparation for the transition.

Prune the Live Stock.

"Farmers can well afford to carefully prune their live stock at the present time. They will be justified in reducing their flocks and herds to a paying basis—that is, selling for food all unprofitable animals, having care, of course, to keep sufficient live stock on the farm to conserve fertility and maintain a balanced agriculture. But now is the time to sell scrubs, unprofitable stock, and to begin the program of re-

building our flocks and herds upon the foundation of profitable animal husbandry. The farmer who is ready to conform to after war conditions—to engage in the sharp competition in his line of business that is inevitable; who has his farm stocked with high-class, profitable live stock; who can meet the demands of the countries that have been depopulated in live stock by the war,—and it must be good stuff that will meet this demand—will be the wise, foresighted farmer-business man. You can not meet this competition and supply this profitable market with scrub live stock. You will be brought into the dust if you try it.

"Now is the time for conservative, careful planning; and preparation for the sure enough change that is coming.

"I believe it is wise to warn farmers not to expect too much of the after the war demand from European countries for our live stock. At least it is wise to advise them that they cannot expect to sell their scrub stock to them. They will insist upon good live stock with which to begin over again.

The Time to Sell the Scrub.

"Meat is high and is badly needed for war purposes and this is the time to sell the scrub. Send it to the shambles, get it off the farm, and replace it with better bred, more profitable stock that can be produced by intelligent breeding and handling.

"These suggestions are not intended to influence farmers to let up in their activities or to reduce their flocks and herds below a workable basis. On the contrary, now is the time to work harder and longer, plan more wisely, and save more scrupulously than ever before. A man's time is worth more now than ever before, if he only takes advantage of the situation. Therefore, he should use it to the limit. Save! I repeat again. The best way to save is to pay debts, and second, to buy government securities. You should buy bonds anyway if you cannot do both because that is investing cheap money in a security that will represent dear money after the war.

"Anticipate the change. Don't be caught with a lot of scrub, unprofitable live stock on your hands that is now needed for food for our soldiers and that will bring poor prices.

"Buy only real necessities, wait for absolutely certain lower prices, and make the profit yourselves."

And now for my own "epilogue." I would emphasize what Mr. Houser says about saving. We are going to pay our own individual debts and our war debts by the practice of good, old-fashioned thrift. I was chatting with an automobile salesman in town this week. He told me that the average mechanic on big pay has not saved a cent in the past three years. They have bought cars and indulged in other luxuries that war brought within their means. They have no reserve. In the days that are coming they will be in trouble financially and unable to help their country in its financial troubles. I only hope that Canadian farmers have been saving and that they will continue to save as long as conditions permit. The saving man is always the best equipped, providing he does not carry it to the point of miserliness.

I would like to commend another remark of Mr. Houser's. We have heard altogether too much about the great demand for our live stock after the war "to restock Europe." It has created an idea that any and all kinds of breeding stock will be in great demand. It won't. European buyers will be shrewd stockmen who know even better than we do that good stock is the only kind worth having. And it will be good stock we sell them or none at all. Improving our flocks and herds, I think, is a mighty good kind of preparation for the reconstruction period.



IN NOVEMBER

By Fred Scott Shepard.

Like a friar of old, en-robed in gray,
Unvaried by fashion's changing array,
Is the somber round of day after day
In bleak November.

Some lives move on in a monotone,
Nor little of varying change have known,
And minor chords seem often to moan,
As winds of November.

Yet rifts of gold in the clouds appear,
A gleam of light the dull scene to cheer,
And life doth have its bright outlooks clear,
As doth November.

And though the month may most somber be,
Yet garnered grain and rich fruit we see;
And life doth have compensations free,
For it's November.

Are Farms Less Fertile Than 40 Years Ago

What Government Surveys Indicate—By Dr. J. W. Robertson, Commission of Conservation

CANADA has about 28,000,000 acres in field crops of which probably 20,000,000 acres are in the three Western Provinces. Is the fertility of the soil being kept up, is it being exhausted, is it being increased? To get an answer, the Commission of Conservation carried out a survey of 2,245 farms. We asked questions of 2,245 farmers located all over Canada. We took them in groups of about 20 or 40 in all about 40 groups, from British Columbia to Prince Edward Island. On this point, we made a definite enquiry of the farmer as to whether the fertility of his farm was being maintained or was deteriorating.

Here is the answer: 30 per cent of them reported about the same yield per acre as 20 years ago, 40 per cent reported some increase in yield, and 30 per cent reported some decrease. That is to say, the land, as used by 30 per cent of all the men reporting, was poorer in its power to produce crops than it was 20 years before. From Manitoba, 32 per cent of the farmers reported about the same yield per acre as 10 years before; not one man reported an increase; and 46 per cent reported some decrease. That is a summary of the answers to the question when put under an intelligently conducted survey.

We want in Canada more serious and intelligently conducted surveys of our conditions in order that we may acquire real knowledge of facts as they are. Then we can come to conclusions and plan our course of action to deal with the facts discovered and properly interpreted. In the West, the lure of land was for a time similar to the lure of the Yukon; disappointed men, deteriorated health, and parts of the Yukon left with less material substance than it could be made wealth than it had before. There is some reason for the pioneers taking more than one generation's share of the fertility stored in soil by the beneficence of nature during long ages of preparation. In the pioneer days they needed and had some fight to move than their share of the store of natural wealth while making the place ready for occupation; but, after that first need is satisfied, it becomes their duty to make the place more fertile while in their hands.

The history of other countries and other farmers sheds light on our problems; and we may be instructed, to our great advantage, by their experience. In central New York, wheat growing was followed successfully for 40 years. During 20 years more the success was doubtful. Then it became definitely unprofitable. With a climate favorable for agriculture and propitious for crop-growing, it took 40 years of exclusive grain growing to make that system unprofitable, and 20 years more to compel the farmers to stop that sort of practice. Ohio, Indiana, Illinois, Iowa and other Western States either have or are making similar history. I have gone over them and talked to the old men from 30 bushes of wheat to the acre they came down to 14.

We can afford to take a lesson from even our enemy. Germany is a country with a soil which on

the whole is not naturally very fertile. Within about 30 years she has been able to effect an increase of about 30 per cent in the yields per acre of her crops. On the other hand, over large areas of Canada, the methods of farming are exhausting the fertility of our farms to some extent; and there is danger that the fertility of considerable areas will be reduced below the point of profitable farming.

Country Mill Cooperatively Owned

It Was Started by Readers of Farm and Dairy

ONE of the latest additions to the various co-operative schemes carried on by farmers in various parts of the province is what is now known as the Bloomfield Co-operative Milling Company. This company has been formed only during the past season, but already it is a powerful force in the neighborhood of Bloomfield. Like most other schemes of its kind it grew out of a necessity. Bloomfield had a grist mill for years, known as the Atlas Milling Company, but of late years its management had not been of the best. Its owner had other interests which occupied his attention, and as a result, the mill ran down and finally closed doors. Thus it remained for some years, during which time the farmers in the neighborhood had to do as best they could without a grist mill.

Last spring some of the wide-awake farmers about Bloomfield led in Farm and Dairy about a similar mill at Port Perry, which the farmers took over. One afternoon Mr. J. E. Baxter was making a friendly call on his neighbor, Mr. W. C. Gough, and the question of the mill came up. All of a sudden, as it were, the idea came to Mr. Gough; why couldn't they take over that mill and have it in use. He quoted his thoughts to Mr. Baxter and asked him if he was "game." Mr. Baxter was "game" but they thought that it would be better to have a couple of more men in it. Ben Leavens and Ed. Purteile were phoned. Both men were "out," but rather than let the matter stand Mr. Gough hitched up his horse and with Mr. Baxter they drove over and hunted up Messrs. Leavens and Purteile. These men had not thought of the scheme before, but were immediately agreeable to it. The upshot was that all four men drove down to see the owner of the mill and in five minutes the deal was through.

The mill was then opened and in a short time was stocked with wheat and coarse grains to the value of over \$10,000. Once the success of the scheme was assured it was thought better to make it a syndicate affair. Shares were offered at \$400 per share and were taken up by 25 of the leading dairymen in the locality.

The mill is being run on a cooperative plan. In connection with the old mill there was a water wheel which supplied sufficient power for the old stone



The New Fruit Commissioner.

A likeness of Mr. W. C. Baxter, at present on the Canada Food Board, who succeeds the late Daniel Johnson as Dominion Fruit Commissioner.

grinders, but which has to be supplemented by steam to handle the modern rollers, with which it is now equipped. This additional steam can also be used for additional purposes, one of which will be the operating, during the fall season, of a hand-packer for tomatoes. The 25 stockholders will each grow a few acres of this crop and they will thus have a sufficient quantity to keep the machine in operation.

After the enterprise gets well in hand it is intended to handle all kinds of concentrates and fancy mill feeds for the use of the farmers in the surrounding districts and general public. Mr. McVannell, the Local District Representative of the Department of Agriculture is working in harmony with the scheme and is giving all the assistance in his power. Mr. Baxter is manager of the plant and is devoting his whole time to it as a 50-horse roller mill requires some attention. Besides Mr. Baxter there will be a staff of five men employed, namely engineer, two millers for the flour roller and grinding outfit, and also two assistants. It is also likely that in the near future the plant may be operated by Hydro.

This is an enterprise which is well worth watching. Bloomfield is situated on the C. N. R., in Prince Edward County, in the centre of a farming and mixed farming district, and should be an ideal spot for the location of such an industry.

Red Clover Seed Prospects

Red Clover Will Be Scarce and Costly

T. G. Rayner, Seed Division, Ottawa.

Now that the red clover crop of 1918 has been cut and should be housed, we have some idea of the amount of seed that will be available for seeding in the spring of 1919. It should be remembered that all the reserve stock of 1918 was practically used in the last season's seeding. This leaves the seed houses with little or no reserves, which is an unfortunate condition, as the present crop promises to fall a long way short of the average needs. Both in the United States and Canadian producing areas the spring conditions caused a heavy killing, which made many places either bare or patchy. Only a portion of these fields were kept to produce seed. Open fields of good promise in patches were ploughed. From this combination of causes there is promised a considerable shortage of seed required to meet the demands of next spring. Consequently the price is bound to be very high.

To some extent alfalfa, which was a fair crop, sweet clover and alfalfa seed will be substitutes. None of them, however, is so good as the red to meet rotation requirements. Harvest conditions have been adverse to saving all the seed and has affected the quality as well.

In cases where farmers have been unable to harvest their seed this fall it would be advisable to protect the crop until next spring when a better opportunity may be had for harvesting.

For the year ending July 1st, 1919, the Allies look to the American continent for 17,550,000 tons of meats, fats, sugar, feed grain and bread stuffs. This means 5,730,000 tons more than was shipped in the year ending July 1st, 1918, and the surplus alone is 197,000 tons greater than the entire shipments based upon the average for the three years before the war. Conservation and production are as absolutely essential in Canada now for peace as here as they were during the last few years of war.



Ayrshire Two-Year-Olds at the National Dairy Show, Columbus, Ohio.

At the head of the string is Queen Bess, exhibited by Gilbert McMillan, Huntington, Que.; 2nd, Adam Setz, Wisconsin; 3rd and 4th, R. R. Nees, Howick, Que.; on Drummond Primrose and Burnett's Barlett; 5th, 6th, Vancouver Farm, New Jersey. Notice the interior of the judging pavilion, with accommodation for 5,000 people. Such an auditorium would be a wonderful asset to our Canadian winter fairs and to our largest fall fairs as well.

ways to avoid feeding some mouldy material. Even when a silo is carefully filled, and the traps are removed during the process some small clumps of mouldy silage are apt to be found scattered through the mass. Also there is commonly a small amount of mouldy silage next to the wall and more around the doorways.

"Many farmers feed silage to their horses each winter, and the majority who are careful about it have experienced no bad effects. However, disaster is liable to occur at any time. One man reported that he had fed silage to his horses for 15 years and scouted the idea of poisoning when the material was fed under his system of management. At last a couple of valuable horses died suddenly with pronounced poisoning symptoms. He decided at once to discontinue the practice because he believed that the saving in the feed bill for those 15 years was all wiped out by the disaster from one dose of poisonous mould."

Orchard and Garden

Orchard and Garden Notes

KEEP potatoes and root crops as cool as possible if you would have crisp, firm vegetables later in the winter.

Currant bushes may be protected from breaking down on account of the weight of snow in winter by collecting the canes together and tying them.

Strawberries should be covered about four inches deep with straw. If the bed is in a windy location, five or six inches may be used to advantage. Coarse marsh hay is sometimes used where straw is not easily available.

The English fruit crop is reported as one of the poorest on record. Small fruits have done better than tree fruits, but not nearly as well as usual. Because of the lack of fruit, rhubarb has been used to take its place, and seeds have been pulled so closely that next year's crop has been endangered.

Fall Plowing in Orchards

OWING to labor scarcity, there are many orchardists who would like to get ahead with the work of the coming season by plowing this fall. The matter has been discussed frequently at conventions of the Ontario Fruit Growers' Association and its different opinions expressed as to its advisability. Mr. Macoun, Dominion Horticulturist, advised against it for Eastern Ontario, especially in the light sands. Mr. G. A. Robertson, of St. Catharines, has lost heavily by fall plowing in his orchards which are in an exposed location. On the other hand, Messrs. Peart and Fisher, of Burlington, Mr. Bunting, of St. Catharines, and Mr. Allan, of Grimsby, at the same convention upheld the practice.

We give below the arguments for and against it as given by the well known expert, Prof. Sears, of Massachusetts Agricultural College:

"There are several good arguments in support of fall plowing. Here are some which have considerable weight. "1. Where land has been plowed in the autumn it can be worked earlier in the spring, not only because the operation of plowing is out of the way but because plowed land will dry out more quickly. It is always desirable to get the soil in good condition and to muck the trees as early in the season as possible. Fall plowing is particularly desirable on rather heavy soils, because it is so late in the spring before they are in proper condition to be plowed."

"2. It frequently, in fact usually, happens that there is less work for the teams in the autumn than in the spring. Often it is even somewhat difficult on an orchard farm to find enough team work in the autumn, and if even a part of the orchards can be plowed it keeps the teams busy and gives the comfortable assurance that

at least much work will be out of the way when the spring rush comes on. To the man who has done his orchard work in an office, this may not seem to be a strong argument, but any one who really gets out and does the work or who even "bosses the job," will find that he, frequently has to modify his plans and theories to suit the case in hand. In particular he will find that the problem of keeping his teams constantly at work is by no means an easy one to solve. Too often it is solved by allowing the teams to stand in the barn, which usually means that the owner has not realized that there is any problem."

"3. Fall plowing disturbs a number of insects that pass the winter in the ground. The spring canker worm, in particular, passes the winter in the soil in the pupa stage, and relatively few of them will survive if the land is plowed in the fall. In cases where a bad attack of canker worm is likely to occur it would seem that fall plowing might be justified for this reason alone."

"4. It gets the old and diseased leaves under the ground where they will not be a source of infection for the new leaves when they come out in the spring. In the apple scab, in particular, it has been shown that the disease passes the winter on the old leaves and if these can be disposed of it will aid materially in the fight for clean fruit. Where the plowing is delayed until spring most of the leaves will be blown off the land into the adjoining grass or hedgerows where they will produce an abundance of spores. If the plowing is done in the autumn the bulk of them will be still in the orchard and will be turned under, thereby securing just as much extra humus as well as getting rid of a prolific source of infection."

"The two principal arguments used against fall plowing are that the soil is more likely to wash and that there is more danger of injury to the roots of the trees by freezing. The first of these is unduly exaggerated and is a sufficient reason for not practising fall plowing in a great many cases on hill sides. Still in many farms there are one or more bins which do not have slope enough to be damaged in this way and on most farms "every little helps," especially in the spring."

"On the freezing argument there is need of more light. It could be relatively easy, with soil thermometers, to determine whether the ground will freeze more deeply in a plowed orchard than in an unworked one or a cover crop. If the land were harrowed down at all there is much doubt that the plowed land would allow the frost to enter any more deeply."—Fruit Branch Circular.

The New Fruit Commissioner

THE Canada Food Board loses one of its most efficient servants in supplying a man to fill the position made vacant by the late Fruit Commissioner Johnson. Mr. C. W. Baxter, the new Commissioner, has been chief of the Enforcement Section of the Food Board since July and has been connected with the Fruit and Vegetable Section since its formation.

Mr. Baxter has been for 20 years continuously in touch with the fresh fruit and vegetable business, and his experience covers buying, packing, marketing and export. He entered the Government service in 1912 as Chief Fruit Inspector for the prairie provinces. His work in this connection, which lasted for two years, necessitated several visits to the Pacific fruit growing districts. In 1914 he was transferred to Easter Ontario and the Province of Quebec, with headquarters at Ottawa. For 15 years of his 20 years experience Mr. Baxter had much to do with fruit producers, and he has a lively appreciation of the problems connected with the producing end of the business. During the late Mr. Johnson's term of office he was intimately associated with him in his work.

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When Writing Mention Farm and Dairy

A Farmer's Method of Storing Apples

SEVERAL years ago I remember visiting a farmer in Kent county, just at the time he was putting away his apples for the winter. Apples were cheap in those days, but for all that, I remember how carefully he put them away. Prices of good keeping apples are high now, hence the need of just such care as this man exercised.

"We use lots of apples every winter," he remarked. "The family like to gather around the stove of a night with a pallet sitting on the hearth and eat until they are satisfied." I noticed that he intended they should not want that winter. As I reflect upon that incident the thought occurs that his method might now be practised with splendid results.

He had several varieties ready to store. These he arranged according to their keeping qualities and saved from those which decay first. The old man was diligently wrapping each

apple with a piece of newspaper and then placing them back in a nice clean barrel. There was no danger of the apples absorbing any unpleasant flavors from the barrel he was using. How often are we treated to apples that taste more like something else! He said that his cellar was too dry and that wrapping and keeping the apples in barrels kept them from shriveling or drying out. Wrapping also prevents the apples touching one another, so that if one starts to rot it will not infect the others. "I keep them off in one corner of the cellar where the temperature stays down around 35 degrees. I never have much trouble with apples rotting when I put them away in this manner."—C. E. MCD.

New Ontario Potato Methods

WHILE in Northern Ontario last spring, I was struck by the unique and novel methods of growing potatoes practised by some of the people of the north country.

Those living in Northern Ontario tell me that they are troubled with late frosts in the spring and early frosts in the fall. Moreover, they say they do not have the early springs and late falls that those in southern Ontario have. Their land is rocky, their crop but little chance to start rapidly. On the other hand, cold weather comes earlier in the fall, giving the crop very short season in which to develop. It is said that "necessity is the mother of invention." Here is a case where necessity has led to the inventing of new methods of potato growing. It strikes me that the ideas of these people of the north are well worth relating, as anywhere beyond the mid- or climate of southern Ontario their methods might well be followed with good results.

I found that the usual method practised is to prepare the land in the fall. Great care is exercised in local fall. In a suitable piece of land, in but few cases will you find a potato patch in the north located on low lying land,

for low lying ground is usually affected by frost. They try to secure a plot on high ground that has a slope to the south or south-west. Good drainage this kind affords. The soil is not so likely to be struck by late or early frosts.

They plow the land in the fall, six to eight inches deep, work it down as fine as possible with the disk and harrow and then throw it up into ridges about three feet apart. Great care is taken to get these ridges level. Frost and a fall of big snow filling the and a manure and straw covering the well rotted barnyard manure. The earth is thrown up again after the manure and straw is worked down with a smoothing harrow.

I was told that planting usually began about the 15th of May. The sets are planted two inches deep in the rows. The method that is commonly used is that of planting the sets one foot apart. In many cases where seed is used, the 1 1/2 inch, the growth larger the set, the stronger the growth.

In summing up the advantages of this method, it may be stated that the settlers of Northern Ontario are able to get their potato crop two weeks earlier than if they used the ordinary method. It is a well known fact that ridged land will dry out very much earlier than land left in the flat. It allows a free circulation of warm air around the ridges, which will, to a very large extent, permeate the soil. These two reasons combined with the fact that the manure in the centre of them will begin to heat, cause an early warming up of the soil. I discovered that as a rule, most of the in the north-ern parts of Ontario know when to expect the early frosts and if their potatoes are up they go through them an inch or so of loose dirt. This prevents freezing off. Young potato plants are kept back but very little being covered. If the plants have been exposed and cut down with frosts, it would have been set back in its growth at least two or three weeks.

To Avoid Rabbit Injury

ONE of the dangers to be guarded against in the case of young tree plantations is girdling by rabbits. While this is most apt to occur in winter, damage may be done at other seasons if these animals are plentiful and other food is scarce.

"The cheapest and easiest method of checking the trouble," says B. O. Longyear, "is by means of some material offensive or poisonous to rabbits which can be painted on the trunks of the trees. Lead or other oil paint, tar, creosote or similar substances are unsafe to use on small trees, such as rabbits usually injure."

"The following preparation is useful and safe for this purpose: Boll together one pound of quicklime and one pound of sulphur in a gallon of water for one hour. Dilute this with hot water, then to make three gallons. To this add one quart of strong caustic soda or a pint of soft soap and allow the mixture to cool. The mixture may be made more effective by the addition of two or three ounces of carbolic acid. It should be used while fresh and stirred during its application. Where only a few trees are to be protected some form of wire screen of not over one inch mesh, wrapped around the tree trunk is the most effective protection."

The Chicago Judging Team

A SELECTION from the fourth year students at Gushp for a judging team of five men has been narrowed down to eight men. These eight are being taken to Chicago, and not until their arrival will the final selection be made. Following are the names of the eight: C. F. MacKenzie, Gushp; D. F. Ayresworth, Bath; W. C. Caldwell, Carleton Place; D. J. Matheson, Lucknow; F. F. Lockman, Burnham; and W. R. Duff, Avonmore.

Hit the Trail Now

—back to where the moose chases through the brush—where there is real life and renewed vigor in every breath you take. Give yourself the keen enjoyment of "bagging a big fellow" by using

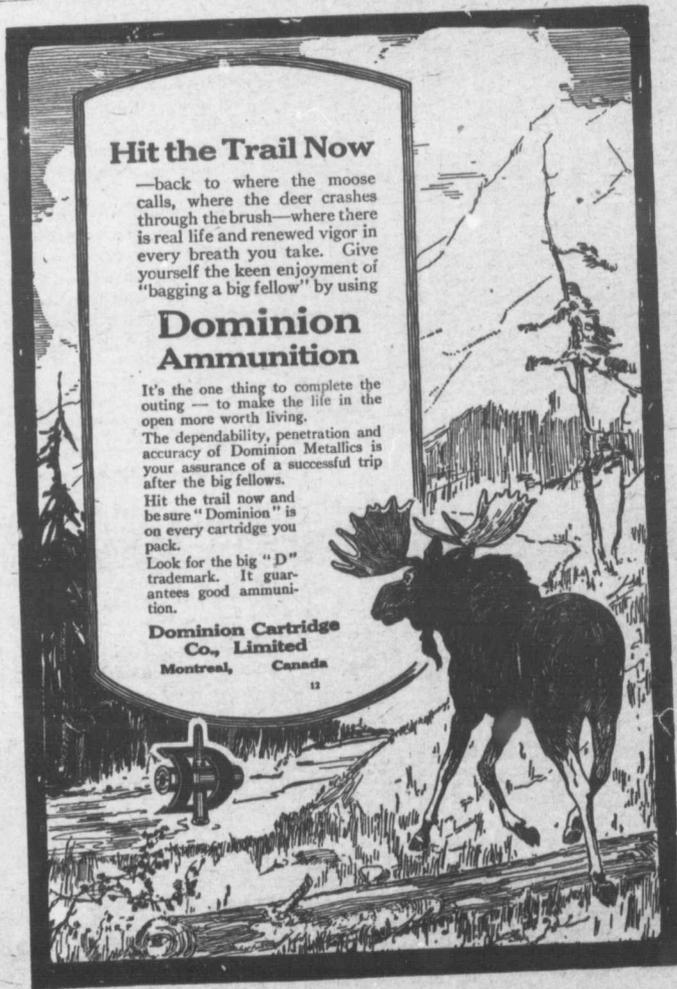
Dominion Ammunition

It's the one thing to complete the outing — to make the life in the open more worth living. The dependability, penetration and accuracy of Dominion Metallics is your assurance of a successful trip after the big fellows.

Hit the trail now and be sure "Dominion" is on every cartridge you pack.

Look for the big "D" trademark. It guarantees good ammunition.

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No Indication Needs M

"FOOD was farmed, produced, the way was that food acting factor in a close. It is the danger of starvation, hunger, and the fire itself of the Allied large part in victory.

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The World's Food Situation

No Indications of a Cessation in Demand for Foodstuffs. Peace Needs May be Greater Than War Needs. What the Food Controllers Say

"FOOD will win the war," the farmers of Canada were repeatedly told through all of the weary war seasons, that food actually has been the deciding factor in bringing the conflict to a close. It was food shortage and danger of starvation that forced first Bulgaria, and then Turkey, Austria-Hungary, and finally the German Empire itself to capitulate. The farmers of the Allied countries have played a large part in the achievement of final victory.

And what of the future? At present there seems no danger of a sudden cessation in the demand for food products. If anything, the need for food is greater than ever before. The problem of feeding the world is causing more worry to men in authority now than it did a couple of months ago. More hungry people are now looking to America than ever before. John Robert Clynes, British Food Controller, said in a speech, that the food situation in Europe continues to be serious, necessitating larger shipments until spring. He said that he confidently expected America to back up any British sacrifices which might be necessary in behalf of the needy from German domination.

Mr. Clynes remarked that the situation had been presented from the wrong critical only because of the fact that a certain amount of wheat flour reserves had accumulated in England. He continued:

"Not the least of the services rendered to the Allies by this country has been the building up of these reserves here. But in order to restore conditions to the normal state of safety there must be greatly increased shipments of cereals until spring.

Beef and Mutton Shortage.

"The food emergencies of peace are likely to be formidable. A certain amount of the stocks now held as military reserves probably will be released, and I hope with the diminution of munitions shipments and the abolition of the convoy system the tonnage position will be improved.

"This, however, will not entirely solve one of the most serious problems, the shortage of beef and mutton. Virtually all the refrigerator tonnage of the world, which is or can be available, and without which meat cannot be shipped, is already employed to the maximum of its capacity for meat deliveries. For instance, while there probably will be vessels available to bring to Europe the accumulated wheat harvests of Australia, there are only a few additional refrigerator ships to bring the large stores of meat from that country and New Zealand. This shortage of allied tonnage is due to the submarine warfare. Nor will an expansion of tonnage modify to any extent our position as to fats and dairy products. There is an absolute world shortage of these commodities.

To Continue Certain.

One thing which is certain, Mr. Clynes said, is that allied food control must be continued, at any rate for many months after peace, and probably must be extended to take on international scope.

"To effectively carry out this plan the allies of Europe, during the vital period of recuperation, must rely upon a continuation of the far-sighted policy of the United States and Canadian Governments in providing credits for food supplies.

"Apart from the allied situation as a whole, the commodities urgently needed in the British Isles are meat, butter, cheese and cattle feeds. Unless there is an improvement in the supplies of these commodities, the

present meagre rations are likely to be cut down, and cattle supplies of the country may be reduced to such a minimum as to involve a long-continued strain on the meat supplies, available from other parts of the world."

The nation's obligation and opportunity to serve stricken humanity in war-worn Europe by helping to provide sustenance until the next harvest, will demand further sacrifices of the American people, Food Administrator Hoover declared recently in an address at a conference at Washington of State Food Administration. Conditions of famine exist in Europe, Mr. Hoover said, that will be "beyond our powers to remedy," even with the carrying out of the plan to ship from America twenty million tons of food stuffs during the next year. In northern Russia alone, he declared, there are forty million people who have but little chance of obtaining food this winter. Millions of others throughout Europe, he said, who can be reached, must be fed.

"The biggest new world situation, created by the collapse of the war," Mr. Hoover continued, "the prime changes in our policies on today's outlook can be summarized:

"That we will still require economy and elimination of waste in its consumption; that for the present we need conservation in butter and condensed milk; that ultimately we must extend this to all the fats.

Regarding Europe: "With the whole of its population on rations of varying degrees of starvation and large numbers who have been unable to get the German heel actually starving," Mr. Hoover said: "The group of gamblers in human life who have done this thing are now in cowardly flight, leaving anarchy and famine to millions of helpless people.

"The war has been brought to an end in no small measure by starvation itself, and it cannot be our business to maintain starvation after peace."

The new German Government has appealed to President Wilson for assistance in feeding its people. Many will feel that starvation should be the lot of those who have themselves shown no mercy, but President Wilson has given his assurance that vindictiveness will not characterize the allied attitude toward Germany and that every effort will be made to alleviate the food situation in the central European countries. At the same time demands are coming from Siberia for food.

Coming more directly to the situation in Canada, the following official despatch from Ottawa is significant:

"With a view also to the absorption of labor, it is announced that preparations are being made for a campaign of increased food production. The cessation of hostilities has in no wise, as yet, justified any relaxation in food conservation. The claims of Germany and Austria for assistance for their starving populations, coupled with the necessity of assistance to Belgium and the Balkan States, and the Balkan States, these additional demands for food, it is felt here, preclude any possibility of early reduction in the cost of living, and render measures of conservation as essential as before the armistice."

In view of the general need, "Production and still more production," it seems, will continue to be the watchword for the Canadian farmer. But with the war nominally over, it is to be expected that thoroughgoing measures will be taken immediately to increase the man power on Canadian farms.

There is BIG MONEY

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Hallam's Trappers' Guide - 96 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; gives animal bait, headsticker, fish nets, and all necessary trappers' and sportsmen's supplies at low prices.

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THE Underwood Check Writing Machine, extensively used by banks and large business firms, provides an ideal system of making out checks. It writes, at one operation the check and the stub. There is no possibility of discrepancy and the stub is a facsimile of the original check.

The Machine is equipped with perforating type. Needle points perforate the paper and the ink impregnates the fibre rendering alteration impossible. Two carbon copies may be made if desired, one filled alphabetically, and the other numerically, facilitating instant reference. United Typewriter Company, Limited, 135 Victoria St., Toronto.

EASTERN ONTARIO
DAIRYMEN'S ASSOCIATION
District Meet'ngs for 1918

Speakers: Mr. G. G. Pablow, Chief Dairy Instructor for Eastern Ontario. Also local dairy instructors and District Representatives. The Provincial Department of Agriculture will also present some high class moving pictures illustrating many important phases of the Dairy Industry.

County	Place of Meeting	Date
Renfrew	.....Eganville	Nov. 19
Lennox	.....Pakenham	..... 20
Russell	.....Leonard	..... 22
Prescott	.....Vankeek Hill	..... 22
Dundas	.....Ingersoll	..... 25
Stormont	.....Goreville	..... 27
Glengarry	.....Martintown	..... 29
Grenville	.....Kemptonville	..... 29
Carleton	.....North Gower	..... 29
Leeds	.....Newboro	Dec. 2
Frontenac	.....Harrowville	..... 3
Lennox and Addington	.....Camden East	..... 4
Hastings	.....Foxboro	..... 4
Prince Edward	.....Picton	..... 5
North Hastings	.....Madoc	..... 6
Northumberland	.....Cambelsford	..... 10
Peterborough	.....Lakefield	..... 11
Ontario	.....Cannington	..... 12

An invitation is extended to every dairymen to be present.

R. G. LEGGETT, President. T. A. THOMPSON, Secretary.

EASTERN ONTARIO
DAIRYMEN'S ASSOCIATION

Farm Management

Spontaneous Combustion of Hay

Is there such a thing as spontaneous combustion of hay? Less than half a dozen years ago the question was vigorously debated in the agricultural press with a wonderful array of expert opinion supporting both sides of the argument. The conviction has now become more firmly fixed that spontaneous combustion is a very real danger. The Iowa Experimental Station announces its conclusion that hay put up too moist may develop spontaneous combustion. They append the following suggestions:

"If the hay is put into the stack or mow when too moist, watch it. The first evidence of heating is shown in the morning a day or two later by the walls being covered with moisture condensed from the water vapor driven off in the heating. If gases or pungent odors are given off the heating is great enough to be dangerous

and the hay should be removed at once. If the heating has become intense before it is noticed, it is probable that a large part of the interior is charred, and removing the hay may admit the air needed to start the charred mass into flames. Alfalfa and clover hay may contain a lot of moisture in the stems when the leaves are dry enough to rattle off. The stems should be dry enough so that no moisture can be squeezed out by twisting a handful of the hay before it is put in the stack or mow. The self-heating of the hay generally reaches a dangerous point a month or six weeks after being moved or stacked."

Which Pays You Best?

KEEPING books pays as well on a farm as in a bank, a railway office, or a factory. Many large farms have a regular bookkeeping department. The average size farm does not need such an elaborate system of account books any more than it needs three or four binders, seven cream separators, nine churns, or five hay loaders. The size and detail of the system depend on the acreage of

the farm and the amount of business the farm does.

Some persons on the farm can learn how to conduct a set of books for the farm. Then only a few minutes a day, or once a week, will be needed to keep a set of farm account books.

Here are several important things a farmer knows if he keeps a set of books: How many dollars' worth of food stuffs sold off the farm last year? How much money was cleared on the farm last year? What crops are not paying? How did this year's profits compare with last year, two years ago, five years ago?

A farmer will be able to check up every item of farm expense such as seed, poultry, cattle, and hogs, their cost and the value of their product to the farm.

Another pleasing and profitable thing about a set of farm books—one can take an inventory at the end of the year of all the live stock, the implements, the buildings, the grain on hand, and all of the equipment and know just where the farm stands financially.

The Commission of Conservation has issued a very simple yet compre-

hensive farmer's account book which will be sent free to Canadian farmers who ask for it, stating at the same time how many acres they work. The supply of these is limited and the rule of "first come, first served" will apply.

Cement Floors Pay

By increasing the value of the manure produced, cement floors in live stock feeding will return their cost in about a year. Tight stable floors save soluble plant food from seeping away as it does with earth floors.

Experiments conducted at the Ohio Experimental Station show that manure was increased in value by \$4.48 annually for every thousand pounds of live weight of steers fed on cement floors over that recovered from animals standing on earth floors. In the experiments 58 steers were fed. The cost of concreting was \$1.00 per square foot. The manure was more in Canada due to the tariff on cement. Two six-month feeding periods would therefore pay for the expense of the concrete floors.

Much of the fertility value of manure is in the liquid part, which is easily carried away through earth floors. Concrete prevents this seepage, making each ton of manure worth more, and at the same time increasing its quantity.

When Manuring Wheat

Manure returns most per ton when spread lightly over a large area rather than heavily over a relatively small space. A increasing the quantity per acre does not usually result in corresponding gains in crop yields.

Land treated with four tons of manure on wheat in a three-year rotation of potatoes returned 45.58 bushels to the acre, or 10.92 bushels more than unmanured land. An eight-ton application to wheat in the same rotation returned an increase of 16.13 bushels per acre. Doubling the application of manure increased the gain in wheat only 48 per cent.

Moderate applications of manure on wheat during fall and winter are less likely to smother the plants. A manure spreader is most effective to obtain even, light distribution.—Ohio Experimental Station.

Open Ditches Supplement Tiles

Don't shy at the open ditch. It is a dividend producer. If it is a field ditch, make it broad and shallow so you can farm right across it. It helps a lot where you have no outlet for tile drains. The drains are, of course, better. The two together are best. They can be used in cooperation. Make your open field ditches with a wash road grade in the fall after the crops are harvested.

Keep open ditch ditches clean. Weeds, brush and mud banks in ditches ruin your drainage. Remove obstructions in the ditch ditches as fast as when it is dry. Then you can expect early drainage in the spring. A little work at frequent intervals will keep a ditch clean and working, and prevent the recurrence of heavy maintenance expense with its consequent discouragement every few years.—H. B. Roe.

Distribution of Seed Grain

EDITOR, Farm and Dairy.—By instructions of the Hon. Minister of Agriculture, a free distribution of superior sorts of grain will be made during the coming winter and spring to Canadian farmers. The samples for distribution will consist of spring wheat (about 5 lbs.), white oats (about 4 lbs.), barley (about 5 lbs.), and field peas (about 5 lbs.). These will be sent out, free, by mail, from the Central Experimental Farm, Ottawa, by the Dominion

Cereals, who will carry application.

Only one sample applicant. As the limited farmers, very early—J. H. Dominion Experiment

FARM

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H. Percy Blanchard

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Over a Hundred Thousand Roofs were covered during 1917 with
BRITISH COLUMBIA RED CEDAR SHINGLES

The famous Shingles from the Pacific Coast are today more popular than ever. Over Two Billion Red Cedar Shingles were demanded during 1917—an advance of 15 per cent. over the previous year.

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PERFECT PROTECTION guaranteed by the 3-ply solid covering of a natural non-conductor.

DURABILITY assured by the decay resisting oils with which nature has saturated the wood.

ECONOMY—Costs only 25 cents per 100 square feet on a life of 25 years (a low estimate for a B. C. Red Cedar Shingle roof.)

"Roofing Helper"—a booklet which tells you all about B. C. Red Cedar Shingles—why they are superior—how to lay them—essential facts about roofing—a handbook every man owning buildings or planning to build should have.

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STANDARD BANK BUILDING
VANCOUVER, B.C.

Cerealist, who will furnish the necessary application forms.

Only one sample can be sent to each applicant. As the supply of seed is limited, farmers are advised to apply very early.—J. H. Gridale, Director, Dominion Experimental Farms.

FARM CHATS

The Trail of the Tractor

H. Percy Blanchard, Hants Co., N.S.

FIVE years ago the flying machine was only a toy; to-day it is winning the farmer's attention and making a greater change in farming than modern machinery. The boy on a reaper can do the work of 50 strong men, and do it better. The cream separator, followed as it is by the mechanical milker, has revolutionized dairying. Now, the tractor is claiming a place on the farm, and promises to reduce still more the man power and expensive horse-power needed to raise the crops that feed the world. The farmer of to-morrow will be a chemist-machinist. The whip-swinging teamster must give place to the knight of the monkey wrench. True, wet or cold, or sweltering heat, will still remain to remind one that he is still "close to nature"; but every day is lightening the burdens of the farmer.

When the modern farm is mainly machinery, an outdoor machine shop, how will the farmer-mechanic be kept on the soil in face of the attractions and wages offered by the city factories for skilled workmen? Nothing but equal pay will do it. Prices of farm commodities are largely governed by the cost of production. When the offer price is less than the farmer deems his cost, he refuses to produce and turns to something more alluring. This refers to the average farmer and not to the exceptional ones. If the average farmer is satisfied with potatoes at not less than 50¢ per bushel, that is apt to be the minimum price. Such a price may work out at only a dollar a day for the average farmer; but if that contents him, there it ends. Where then the higher wages for the more ambitious farmer? Either he must, by combination or exhortation, prevail upon the average farmer to raise his price, or else he must, by improved methods and machinery, reduce his own cost production price. It is probable that in the face of the whole world's competition in farm product this latter will be the way out.

The tractor postulates two expectations—more work at the time and greater speed in doing it. A five-acre field may have just five big boulders. Since grandfather's time the plowman and the mower went round them. They meant little then. But today they not only hinder the tractor, but are a menace to the plow. So one soon with a dollar's worth of high explosive and a stone boat, and they are gone forever. In the centre of another field is a bog spot. It is not very much. The horses always get through it, and the mower hesitated it all right in dry spells. But it is not good footing for the tractor. It takes four days to do it; but now a tile drain is put in and the bog spot is a thing of the past.

There are a couple of plank bridges. The horses never got hurt on them. If a plank broke the horse was smart enough to jump. However, a tractor is not so active as, on occasion, is a horse. It is too risky. So up comes the plank, and down goes a 12-inch pipe.

There is something orderly and exact about machinery. Every wheel is a circle, and every corner is a square. The bad spots and inequalities of a rough farm are detrimental to the best use of machinery. They represent a visible cash loss to the farmer. To see that loss the rough places must

be made smooth. It is possible that one of the greatest incidental results of the increased use of farm machinery, and particularly of the larger machinery—that will come with the tractor, will be the improvement in the tillage qualities of the fields, and the rooting out of those nuisances which previously were tolerated. The farm will be laid out as a real workshop, instead of being looked upon as just something that was found in the woods.

Right.

"The man who gives in when he is wrong," said the street orator, "is a wise man; but he who gives in when he is right is—"

"Married!" said a meek voice in the crowd.

CITY MILK SUPPLY

The Microscope in Milk Grading

DAIRY farmers generally are aware that the number of bacteria in milk is a fairly accurate index of its quality. Milk that has been drawn with dirty hands into pails not properly cleansed will show a very high bacterial content and will sour in a comparatively short time.

On the other hand, milk that has been clearly drawn into sterilized receptacles and properly cooled, will have a low bacterial content and just about in proportion as its bacterial content is low will its keeping powers be high.

If the milk dealer has some quick

easy method of determining bacterial content, he would be able to determine more accurately than at present, just what milk should be accepted and what rejected.

Until recently this application of the bacterial count of the milk industry, has been made by a method which does not give the count until such a length of time that the milk would have been either used or soured. The bacteria in a small sample of milk were given an opportunity to develop in a jelly like substance called agar, poured out on sterilized plates. At the end of several days each of the bacteria will have developed a small colony and it is the counting of these colonies which indicates the bacterial content of the milk. This method is useful in showing what kind of milk,



"Mr. and Mrs. Acres Desire the Pleasure of Your Company."

A Gillette enthusiast has boldly stated his belief that the famous razor has caused a complete revolution in social life in the rural districts today!

It is true, as he says, that one cannot now distinguish between the city man and his brother in the country.

But do not give *all* the credit to the Gillette Safety Razor.

Smooth chins assuredly do prompt correctness in other things, but it hardly seems possible that the smartness of the social gathering in present-day farm homes is due to a razor—even the best razor in the world.

You answer an invitation to call at a friend's house, and enter a softly-lighted room to find well dressed women and keen looking, clean shaven men.

How glad you are that you came prepared to hold your own in any company.

And how satisfying it is to know that if guests drop in on you unexpectedly, the daily few minutes with your Gillette finds you **READY** to receive them.

One thing is certain—a Gillette Safety Razor should be part of the equipment of every man of today.

Gillette Sets are sold by Jewelers, Druggists and Hardware Dealers everywhere at five dollars.

Gillette Safety Razor Co. of Canada, Limited,

Office and Factory: 65-73 St. Alexander St., Montreal.



from the bacterial standpoint, a producer had brought to market some time before, but it can not give notice in time to be of much use in accepting or rejecting milk offered for sale.

According to the new method described in Bulletin 443 from the Agricultural Experiment Station at Geneva, N.Y., the microscope is used to count the number of bacteria in milk and results may be known in a few minutes or a few hours. By this method a small portion of milk is spread on a small rectangular piece of glass and dried, then prepared by immersing in liquid and staining solutions so as to make the bacteria visible and the whole suitable for examination under the high magnification of a compound microscope. This slide, which forms a permanent record of the bacterial condition of the milk, can be prepared in 10 to 15 minutes and examined at once, or it can be kept until some convenient time.

Kingston Milk Prices Reduced

A DESPATCH from Kingston, Ont., indicates that the spread in milk prices, arranged by the Milk Committee of the Food Board early in the war, is being insisted on. It reads:

"Under an Order-in-Council received here to-day, Milk Inspector G. W. Bell, V.S., has ordered that all milk vendors must sell milk at not more than 12 cents a quart. Most of the dealers have been charging 14 cents for it. The new price allows a margin of five cents a quart over cost."

Tractor Questions

As asked by the Department of Agriculture of the United States and answered by Manufacturers of Farm Tractors.

Horse Power Ratings

Are the horse power ratings of tractors uniform? If not, in what respect do they differ?

W E are sorry to say that from all indications they are not uniform. The reason is not all instances a high speed automobile type motor is employed and by speeding it up beyond what is practical to run, it will develop, at least for a short time, a surplus of horse power without regard to its ability for endurance.—Avery Co.

Horse power ratings are not uniform as some are rated to the limit of belt power capacity, while some are rated allowing for reserve. Many of both classifications are based on the use of gasoline and will not develop full rating on kerosene. Others are rated correctly allowing for the use of kerosene. Drawbar ratings in horse power are only arbitrary and not based on actual pull developed.—Advance Rumely Theater Co.

Reasonably so—the chief difference being in the percentage of excess or reserve power.—B. F. Avery & Sons.

No, and the difference in the respect that the manufacturers have not adopted a uniform basis in rating internal combustion engines.—Brillon Iron Works.

There seems to be no standard adopted. They differ mainly in the actual horse power developed and in the estimated displacement of horses used.—Elgin Tractor Corporation.

Horse power ratings of tractors are not uniform. Each manufacturer apparently has assigned to his tractors ratings that appealed personally to him, mainly with some regard to actual performance, but in many instances with apparently little regard thereto.—Emerson-Brantingham Co.

No, very few have the nominal rating the same as the actual power that the motor will develop.—Frick Co.

H ORSE power ratings of tractors are likely to vary on account of the different methods of determining the horse power of the engine. If a Prony brake test of such engine is made, the horse power ratings at belt, but if the rating on the basis of the bore and stroke by the S.A.E. or any other formula is used, the rating will not be uniform because of the difference in efficiency of the engines of different design. It is the brake horse power that really determines the rating of the tractor. The brake or belt horse power is the power developed by the engine at the belt or on the brake. There is a difference in rating of tractors from the standpoint of reserve power. The belt horse power of some tractors is the maximum horse power that the engine will develop, while in some cases, especially with conservative manufacturers, there is an allowance of 10 to 20 per cent made for reserve power. In other words, a tractor rated at 20 h.p. on the belt will develop from 20

to 24 h.p., this reserve power being allowed to prevent overloading and to assist in case of emergency; also to enable the tractor to give its full rating of horse power at all attitudes at which it is practical to operate tractors. The common way of rating tractors is the use of such expressions as "which it is practical to operate tractors" is the use of such expressions as "7-14, 10-20, 13-25, etc." The first figure is intended to represent the drawbar horse power and the latter the belt or brake horse power. Although the practice has been to place the drawbar ratings at 50 per cent of the belt ratings, many tractors will develop more than their rated power at the drawbar due to the fact that the kind of transmission used is efficient, while on the other hand, a transmission that is less efficient were used, more power will be lost between the engine and the drawbar. For instance, there may be two engines which develop a maximum of 20 h.p. on the belt. The method of power transmission in one may give a drawbar pull of eight to ten h.p., while on the other it may go to even 13 or 14 h.p. Manufacturers who are conservative in their rating would put the drawbar horse power at 10 in case latter case.—International Harvester Co.

W E do not believe that the horse power ratings of various makes of tractors are uniform. This is a matter which has been up for serious consideration with the Society of Automotive Engineers, and, as is well known among tractor manufacturers, they have suggested a method of horse power rating which will tend toward uniformity. This, however, has not as yet been generally adopted.—Minnesota Steel & Machinery Co.

All existing horse power ratings are ambiguous for the reason that it is necessary to know the thoughts of the manufacturer who gives his rating. It is a general supposition that a tractor loses one-half of its belt horse power transmitting the power to the drawbar. So that if a tractor is a 20 h.p. belt it will only be a 10 h.p. on the drawbar. Should a manufacturer, through good design, be able to deliver 75 per cent of his horse power at the drawbar, then that tractor would naturally be a 15-20. Should he rate it as a 15-20 considerable complication would result for the reason that the average farmer considers the present type rating standard and expects a tractor to have either twice as much power on the belt as on the drawbar or one-half as much power on the drawbar as on the belt, which

has not and does not apply to all tractors that are made. Again, drawbar horse power is a term for which there is no standard form for determining. The speed is one of the most important factors. A tractor that will develop 1,500 lbs. drawbar pull will show eight horse power at two miles an hour, 12 h.p. at three miles and 16 h.p. at four miles an hour. A uniform rating should be established, or, better yet, a tractor should be given a number of horses.—Moline Plow Co.

Tractor Information Wanted

E DITOR, Farm and Dairy.—I have been interested in the farm tractor problem and followed with interest the contents of the October 3rd edition of Farm and Dairy. Provided a tractor would work on soft land, I could make one pay, I believe. I have to wait wet seasons often until late May and early June in order to allow my land sufficient time to dry out. Then I have work enough for double the teams I use on some 60 acres of low-lying land and 50 acres of orchard, some of which I cannot get onto to spray before the bloom. Now tractor sellers tell me their tractors will work where a heavy team of horses can work. I have yet to be convinced that such is the case. My idea is that a heavy tractor would stall and a light one would have too little power to get over such land after the sod has been broken and turned under. One of those caterpillar or belted variety would, to my mind, be the kind for wet fields. It would cross small ditches. Some of your readers might have the same conditions I have, and might be able to give some good ideas. I need lots of information on this question. I would like the address of a tractor publication.—R. D. Lyons, King's Co., N.S.

[Note.—Any of our folks who have had experience with farm tractors under the conditions described by this Nova Scotia farmer would confer a favor on Mr. Lyons and on Farm and Dairy by writing us of their conclusions and results. There must be many farmers throughout Canada who have to deal with similar conditions, and who, like Mr. Lyons, are looking for more light on the subject.—Editor.]

Killing frost with ice was reported from the Mississippi-Delta. "Why did the whale cast up Jonah?" "Because it was afraid it would be fined for food hoarding."



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W ORTHY of their name, because Maple Leaf Tires have the stamina necessary to reach their objective—
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A bright, clear light—without charred wick or sooty chimney—is assured when you use this oil in lamps or lanterns or oil stoves. Have handy a good supply of oil that insures uniform heat with no smoke, no smell, and does not leave a carbon deposit to clog wick and burner. Also best for incubators and brooders and the most economical tractor fuel.

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Letters to the Editor

One View of Reconstruction

EDITOR, Farm and Dairy.—In your editorial of Oct. 24 issue, you seem to think that "after the war the deluge"; that tremendous efforts are needed to take care of the returned soldiers and those now working at munitions. It seems to me that you greatly overstate this. It was feared such conditions would obtain as you picture after the Civil War in the States, but the whole body was assimilated, causing scarcely a ripple. I see no reason why such should not be the case with us. The munition workers, made up largely with girls, will, except the girls, be more than needed in changing back factories to civil uses and to make up the depleted civil stocks of goods, and to take to countries whose stocks are all gone, using vessels which bring back the troops. We won't have enough for this; we didn't have too many before the war and the business after will be increased greatly.

The 400,000 troops coming back, you say in a later edition, will take 18 months. Of these, 350,000 are from the farms. If the farmers at the front are in proportion to population, as is claimed, and as they are needed so badly on the farms as stated by that little band of farmer patriots who went to Ottawa solely to educate a bunch of ignorant politicians, surely they can not, and will not, get back to the farms fast enough. The balance, 150,000 or so, could be used by either Montreal or Toronto alone.

There will be a lot of malmed men whose best interests will have to receive a lot of attention and care, but this is another question. If we can get more men to settle on the farms from the troops, this is highly desirable, but I doubt if we can; that is, to amount to anything. If they didn't before they are not liable to now. Our industries after the war are, in my mind, going to need more hands than before the war; and we will have many less.—F. E. Came, Richelieu, P. Q.

Cost of Black-Leg Vaccine

EDITOR, Farm and Dairy.—I have thought it well to draw your attention to an article entitled "black-leg," written on page 1195 of the October 31st issue of Farm and Dairy. As one of the statements is not correct, I have thought you would desire to give your readers the proper information. The sentence to which I refer is the last one in the article, and reads as follows: "The Veterinary Department at Ottawa furnishes this vaccine free. Where black-leg is known to have occurred all cattle should be vaccinated." This sentence should read as follows: "The Federal Department of Agriculture, through the Veterinary Director-General at Ottawa, furnishes this vaccine at cost, the price being five cents per dose for the vaccine, and 75 cents for the instrument used for inoculation purposes. Where black-leg is known to have occurred all cattle under three years of age should be vaccinated."—F. Torrance, Veterinary Director-General.

Subjects for Debate

A FEW real live debates will liven the winter programme of the farmers' club as nothing else can. The Extension Department of the University of Saskatchewan submits a list of subjects for debate covering all lines of public discussion. Here is the list as it stands at present:

- Canadian navy.
- Closed vs. open shop.
- Commissioner government of cities.
- Compulsory military service in Canada.

Compulsory military training in Canada.

- Consolidated rural schools.
- Cooperative banking.
- Cooperative trading.
- Direct legislation.
- Educational qualification for suffrage.
- European war (responsibility for).
- Government ownership of railways.
- Home rule for Ireland.
- Imperial federation.
- Minimum wages.
- Municipal ownership of public utilities.

- Oriental immigration.
- Peace vs. war.
- Platform vs. press.
- Prohibition.
- Protection vs. free trade.
- Reciprocity with the United States.
- Rural vs. city life.
- Simplified spelling.
- Single tax.
- Socialism.
- Trade unions.
- Woman suffrage.
- Mothers' pensions.
- The tractor vs. horse.

Information on any of these subjects may be had from the dairy press, back files of magazines or from books available in any well equipped public library. The first subject, for instance, might be worded as follows: "Resolved, that a Canadian-owned navy would be in the best interests of our country." The others would be worded in similar resolution form for debate.

Dairy Show at Winnipeg

A DAIRY Show will be held at Winnipeg, February 17th to 21st, 1919, in conjunction with the Annual Convention of the Manitoba Dairy Association. The last convention of the Association held at Winnipeg in January of this year was, by common consent, the best ever held in Canada. A large factor in making it such a marked success was its interprovincial character. It was not simply a Manitoba convention, but a convention for the three Prairie Provinces, which have set the new standard for Canadian creamery butter during recent years. Still greater emphasis is being given the interprovincial idea in connection with the next convention and dairy show and any one desiring to meet all the representative creamery and milk plant operators and ice cream manufacturers of Western Canada, will have an opportunity to do so at Winnipeg from February 17th to 21st.

Prominent manufacturers of dairy equipment and farm dairy supplies in Eastern Canada and the United States have stated their intention to place exhibits and all will doubtless welcome this, the first opportunity to display their goods to the representatives of dairymen in all its branches in Western Canada. It is to be really the greatest demonstration of its kind ever held in Canada.

A splendid auditorium, comprising seven thousand square feet of space available for exhibits, has been secured for the Dairy Show, while sessions of the convention will be held in the beautiful Fort Garry Hotel nearby. Strong committees have the whole affair in charge and their plans ensure exhibitors and visitors their money's worth and a genuine western welcome in addition.

Blue prints of the Dairy Show auditorium are available and will be furnished with all additional particulars upon application to Mr. L. A. Gibson, Secy., Manitoba Dairy Association, Government Buildings, Winnipeg.

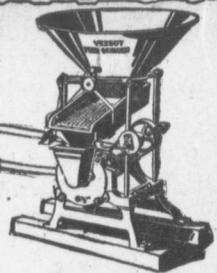
The epidemic of influenza has been having a somewhat serious effect in the dairy districts, owing to a number of cheese-makers having been affected by it, making it impossible for them to operate their factories. Chief Dairy Instructor, G. G. Fubow, informed Farm and Dairy recently that a number of the instructors had, in some cases, been running the factories in the absence of the makers.

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All Kinds of Grain



THE Vessot "Champion" cleans grain as well as grinds it. The spout that carries the grain to the grinder is made with two sieves, a coarse one above and a fine one below. The coarse sieve catches nails, sticks, and stones, but lets the grain fall through. The fine sieve holds the grain, but takes out all sand and dirt. The grain passes to the grinding plates as clean as grain can be.

No matter what grain is being ground, fax, barley, corn, oats, wheat, rye, peas, buckwheat, screenings, or any kind of feed stuff, it is thoroughly cleaned and ground, fine or coarse as desired.

Vessot grinding plates do such good work that we have found it best to protect our customers by placing our S. V. trademark on all our parts. Look for it when you buy.

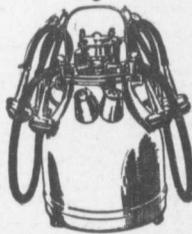
A "Champion" grinder does its best work when run by steady power such as is furnished by a Mogul Kerosene Engine. A card or letter to the nearest branch house listed below will bring you full information about both these good machines.

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Save Labor



FARMERS must produce more to meet the country's increased needs. Yet skilled farm labor is scarcer than ever before.

Hand-milking hampers increased production by taking labor from larger tasks. Hand-milking wastes valuable hours every morning and every afternoon.

With the Burrell (B-L-K) Milker one man operating two 8-cow outfits can milk from 24 to 30 cows an hour, do the work of three hand-milkers—do it easily and cleanly, while increasing the output of the herd.

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Thus each Burrell Milker saves the time of two farm workers. This saving pays for the outfit's cost in less than a year. A Burrell Milker is an investment which will help the country to larger crops and bring profitable returns to each owner.

More than ten years' experience of many dairymen prove the profits of the Burrell Milker. Write for experience and descriptive booklet.

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To sell your surplus stock of through the live stock column of Farm and Dairy. The cost is little and the results certain. Send in your ad.



As virtue is its sincere aid; so vice is its own punishment.

Heads and Hearts

(Continued from last week.)

"THAT old Jeremiah at the inn was fairly out of his reckoning this morning," one of the young men remarked, as he set a bottle on a boulder and began to collect a supply of rocky chips.

"Yes," laughed another, "I fancy he thought the mere mention of rain would make us order a hot luncheon for eight on the spot. I should wonder if we are in for a long spell of clear, fine weather. What do you think, Miss Marjorie?"

Miss Marjorie Grant, a dark, pretty girl, with dangerous eyes, smiled. "Bephany," she said, "As for old John of the inn, I have seen him make mistakes, but not often. Still, I think he was wrong this morning. Have you any weather-wisdom, Mr. Preston?" She turned to the man on her left.

"I make a point of going by the oldest inhabitant," he replied, coloring a little, as a sensitive man may do when unexpectedly addressed by the girl with whom he is honestly in love; "it is the only way to acquire occasionally a superior feeling. But I don't care if it snows," he added foolishly. "Do you?"

Miss Grant protested that she carried very much. Snow on those mountains was no trifles. She had lived in Creedale nearly all her life—

"And Preston has been here since before Christmas," she said to the other young men. "He ought to know the signs by this time."

"I know the signs well enough," said Willy, a trifle impatiently, "but I'd like to find the man who knows what they really signify. Any idiot can guess."

Poor Willy! Having had London and society, he had come, via sundry more or less dreary places, to the wide expanse of Creedale—only to fall in love with the lady's youngest daughter. No wonder!—she was the prettiest of five pretty girls, and Willy Preston of the Inn, who seldom saw gold, wondered whether he was a duke in disguise or a collier. As for Marjorie Grant, she liked Willy, but whether much or little she did not yet know.

The party resumed the ascent, mainly in couples. Willy was not with Marjorie, but he was bent on securing her company for the return journey. He could endure the suspense no longer.

The question he often checked during the last few weeks made up broken before another sunset. In his turmoil of spirit he lagged slightly behind the others. He did not hope, but neither did he despair. Of one thing at least he was certain: the secret—not of his heart, but of his head—was still all his own. Jenkinson, of Albemarle Street, had indeed done his work well. He still would do Jenkinson's great good turn some day in repayment of those months of peace, and slowly, but surely, increasing confidence, not to mention freedom from cold.

Yet to-day, Willy, even smart from his anxious heart, would have been

far from happiness. His mind was no longer tormented by fears of discovery; but as surely as the wig rested securely on his head, so surely did it lie a miserable weight on his conscience. Marjorie, of course, must be told the secret! And but when and how? Like all sensitive people, Willy had a keen sense of the ridiculous; why

but somehow—! His voice dwindled, and Miss Grant made haste to change the subject.

Suddenly one of the men called a halt.

"I say, I vote we go no farther. There's change coming." He pointed eastwards.

The party gathered together and discussed the weather at great length. Some were for rising at the summit. Some were for retreating. Precious minutes were wasted in talk, serious and flippant. At last a girl shivered.

"What a frightfully cold wind. Straggling, they began to descend. Progress was slow, the track for the Progress was terribly rough and next to nothing to be done on it and steep. The breeze seemed to bite, and the light white for home upon it brought water to the eyes.

"Let's keep together," shouted someone, and almost as he spoke the fog thickened.

Willy Preston looked at his watch. It pointed to three-thirty. Miss Grant looked at it also.

"Perhaps," she said, thoughtfully, "it may clear before dark. Meantime it is getting worse. We must stop where we are, Mr. Preston."

A halloo reached them, it adding: "Miss Grant answered it, adding:

HOME

BY MRS. NELLIE KEDZIE JONES.

WHAT are we all working for? I suspect I can put it in one word. Every one of you, every man and woman all over this land, is working for one thing, and that one thing is his home. We are working best and fastest and strongest we are working for the home. We are working for the loved ones in the home, and as each one of us puts in his best effort in and year out, it means the making of better homes, and the sending of better boys and girls to take your place and my place after we have passed on into the next world.

A few years ago this nation showed its appreciation of homes. A great ship went out from this coast, went out in silence. She carried no passengers. She sailed through the dark rocks of Gibraltar and on through the Mediterranean, between the great rocks of Gibraltar and on through the Mediterranean, until she reached an African port. There she stopped and one long box was carried on board.

Then the ship turned around and back she came through the darkness, through the storm, through the sunshine, and when she touched our coast again the streets and raised their hats, because they knew that the dead body of John Howard Payne had been brought home for burial—the body of the man who had written for us the sweetest song in all our language, the song that sings of "Home, Sweet Home,"—and the whole nation honored the thought of home.

As you and I work in one way and in another, and in this way and that, for the home of you, of me, of our race, so fast or quite so well as you, it means perhaps been able to work quite so fast or quite so well as you, it means that the whole nation will grow because every home in it will be a stronger, better place from which to send out the young people to carry on their work.

the same time he was far more afraid of Marjorie's pity than her laughter. Again, if she loved him now she would forgive his infamy later; but if she didn't love him now—and he could not hope that she did—the disclosure of his infamy would surely be the end. He gnawed his pipe, struggling with an ugly temptation.

And in the same hour Miss Marjorie's escort, a youth with a kindly heart, but a loose tongue, remarked: "It's hard lines for the poor beggar having to meet him. I twinged it the first day I met him. Didn't you?" The girl's color came and went.

"No," she replied. "But if I were you, Frank, I—I wouldn't give it away."

"I'm afraid I mentioned it to—"

"Oh, well, then it can't be helped. I don't suppose Mr. Preston minds. Certainly, I can't say I see much difference between a man's wearing a wig and a woman's sticking all sorts of false things on her head."

"Hear, hear!" You're a sensible girl, Marjorie. But I'm sorry for Preston, especially as—as—"

"As what?"

"Well, you see, I've discovered that it is the man who helped my brother-in-law, Watson, out of a shocking hole two years ago. I feel an awful brute to have mentioned the wig to anyone,

"Better stay where you are. We must be near the Pied's Leap."

"Oh, you'd better come on—carefully," came a faint reply.

"Did you mean that it is dangerous to go on in this?" Willy inquired.

"It isn't safe," she said, quietly. "But if you think—"

"Let us get some shelter from the wind," he said, "or you'll be frozen."

I noticed an overhanging rock a few yards back."

"Be careful," she said, allowing him to grasp her arm.

They found the rock without much difficulty; to some extent it sheltered them from the stinging breeze, though not from the clammy chill of the fog.

"There used to be a little here, here," she informed him, "but it was blown down last year. See, there are two down last year. There is a spring quite near, just yonder."

He picked up a plank; it felt moderately dry.

"Are we likely to be tor-bounded long?" she asked.

"I hope not. We must have patience."

"We might have a fire." He got out his knife.

She looked at the plank in his hand. The other plank and some frag-

ments of wood at his feet. Slowly she replied:

"Perhaps we had better take the fire until we can't do without it."

"I see," he said, gravely. "Aren't you cold?"

"Not yet."

It was after six o'clock when she gave in, and sat down with her back to the rock. The fog was so thick white; it was dark grey. Soon it would be black.

"I wonder if the others went on," said Willy, for the sake of conversation.

"I don't think they could go far. We had the accident flask, Mr. Preston."

He sighed. "Not I. Shall I make a fire now, Miss Marjorie?"

"Wait a little longer. I—I'm afraid of the night."

He had already stood off a small heap of wood, and he continued to cut in the gathering darkness, talking as cheerfully as he could.

"It's not the warm work," he said at the end of half an hour. "I'd be freer without my jacket. Take the use of it for a little while, won't you?"

"Certainly not. You'd freeze without it. Perhaps the weather will clear soon."

Half an hour later he heard her moan.

"We must have the fire," he said, firmly, and feeling his way, as it were, for it was now very dark, he prepared some shavings of wood.

When that was done he had difficulty in restraining his teeth from chattering.

"Miss Marjorie, I'm ready now." He fumbled in his pockets. "By the way, you don't happen to have anything—"

"I don't have anything in your possession? I don't think I am. I've got nothing but one scrap of paper." The scrap happened to be a five-pound note.

"I don't care for anything you don't particularly value, Miss Marjorie!"

She did not reply. He crept close to her, and spoke again. A moment later his jacket was over her head and shoulders.

He got out the thinnest shavings, placed them on the crumpled note, and set out his match-box. Four vestas. He gnawed. With numbed finger and thumb he succeeded in lighting out of the taper near the head, then using his hat as a shield from draughts, struck a light, and applied it to a corner of the note.

The note was inflammable enough; the shavings merely sparkled feebly at its extremities. He produced his handkerchief, but it was wet from wiping the fog from his eyes; his silk handkerchief, but it failed to ignite the unwilling fuel. Two matches remained.

Once more he went close to the girl.

"Marjorie!"

No answer; no movement.

"Hush! I love you!" He kissed her hands one after the other, sighed, removed his sweater and tied it round her, and went back to his seat, attempting to win the salvation of heat.

His first time he did not fail. He even had a match left over. From an evil-smelling fawn and a poor, spluttering handful of shavings the fire, cautious, tended, rose gradually to a cheerful, life-reviving blaze.

When Miss Grant came back to his world of many inventions and of few great truths, her boots were of sad green felt, turned in the snow, were her bright, bright chafed. Doubtless she was still too cold to blush, and indeed, it was some time ere her mind collected to all that had happened.

"Don't worry," said Willy, as she thereupon answered so silently. He turned to the fresh wood on the fire; he stirred it, and a bright flame shot up.

"How do you feel now, Miss Grant?"

(Continued on page 183.)

The Up

Conflict

Thanks he said. The victory—O O go ye forth in preach the gospel. Mark xv. 15.

Take up our cross. To you from the torch, tis

VICTORY

led and out news flash that at last "I have watched, had dawned. E

realize what "over there, with veritable hell of and to those who

what Victory heart of each within him as he events of the sun

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kingdom shall of all the earth, d

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and sinners. Meantime to you committed the and responsibility

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To lead men He has no tongue To tell men He has no help

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Of things His How can we h

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The Upward Look

Conflict and Victory

Thanks be unto God which giveth us the victory.—1 Cor. xv. 57.

Go ye forth into all the world and preach the gospel to every creature.—Mark xiv. 15.

Take up your quarrel with the foe, To you from falling hands we throw The torch, 'tis yours to hold it high.

—Col. McCrea.

VICTORY! How our hearts thrilled and our pulses leaped as the news flashed around the world that at last "The Day" for which we have watched, wept and agonized had dawned. Even yet one can hardly realize what it means. To the men "over there" who have endured that veritable hell of agony for four years and to those who have been prisoners in Germany only they can realize fully what Victory means. Surely the heart of each of us must be burning within him as he read the momentous events of these last eventful hundred days. In the successes of these days the justice of our cause has been abundantly vindicated, we have seen that truth and right only are mighty and prevail, and that the Most High alone "ruleth among the kingdoms of men and giveth it unto whomsoever he will." Above the ruins of Prussianism and autocracy one might well write the epiphany, Sic transit gloria mundi, So fadeeth away earthly glory.

In the midst of our rejoicing let us not forget that there is another conflict raging in which no armistice is signed and no quarter given. This is the age-long, world-wide conflict against sin. It is the battle which each must fight and which none can win in his own strength, but in which each can be more than conqueror "through Him that loved us." In this battle there are no neutrals, for our Captain has said, "He that is not for Me is against Me," and His commands to those who are His is "Go ye into all the world and preach the gospel," till the good news of salvation for all "to every creature." This is the command that none may avoid, the torch flung by the hands of our leader and caught and held high by the multitudes who have followed in His train, laying their good lives down in His service and passing the quarrel on to us. Here too the strongholds of the enemy are falling one by one as land after land opens its doors to the glorious gospel. Here too our Leader is invincible and victory certain, and His kingdom shall one day bear sway over all the earth, and in that victorious day "The ransomed of the Lord shall return and come to Zion with songs and everlasting joy upon their heads, they shall obtain joy and gladness and sorrow and sighing shall flee away." Meaning to you and to me He has committed the great privilege, trust and responsibility of taking up His quarrel with the foe of the human race, of telling to a lost world the wondrous story of a free salvation to all, and of hastening that coming joyful day of our Lord's return.

Christ has no hands but our hands
To do His work to-day,
He has no feet but our feet
To lead men in His way,
He has no tongue but our tongues
To tell men how His died,
He has no help but our help
To bring them unto His side.

What if our hands are busy
With other work than His?
What if our feet are wandering
Where sin's allurements lie?
What if our tongues are speaking
Of things His lips would spurn?
How can we hope to help Him
And hasten His return.

—J. H. H.

House Work as an Art

There is so much talk about women's work being monotonous nowadays! I am the mother of four small children besides having some old people to look after. We are nine of a family, but I never find my work monotonous; on the other hand, it lends me much variety, but I really think there never was a time when more real thought could be put into the work. Were it not for this terrible war (which is spoiling everything of course) I think we could take a great deal of pleasure out of house work.

(1) Financially: The women on small incomes and large families have a great chance to "do a business." It is woman's trait to subtract \$25 from \$20 and get a satisfactory remainder.

(2) Scientifically: Where is more science shown than in the home, where it is necessary to study the different kinds of food and their uses?

(3) Nursing and doctoring holds a big place in our homes.

(4) System is also a necessity.

(5) Art: Who is more usefully pleasing to men in general than a clean home and happy wife and kiddies? Please give me the name of any artist who has painted a more pleasing picture. If we worked as hard at our art as many artists do at theirs, possibly we would accomplish as much.

What is more artful than the beautiful morsels of bread we can build or the perfect prints of butter we cut out? The greatest trouble with us is our viewpoint and that takes us back to a discredited enjoyment in Farm and Dairy some time ago about the educated woman being a social butterfly. I was a professional woman for two and one-half years and believe that helped me to have this outlook which I have expressed here. Yes, I often get discouraged, too.

Could anyone tell me a recipe for a good home-made cheese that I could make myself to be used on the most less days? If it requires retter or anything like that, please tell me where I could get it.

I enjoy reading Farm and Dairy and though trying to cut down on expenses, we feel we cannot leave out this paper.—"Cousin Amelia."

How About Next Summer's Ice?

As a general rule when we discuss the question of the ice supply, it is the man with whom the subject is discussed. For a change we are going to talk to our Women Folk. This is the wrong season of the year for us women to really appreciate a supply of ice on hand, but, of course, we realize that in order to have ice during the hot months it is necessary to make preparations for storing in fall and winter.

How many of us have ever stopped to think of the many reasons why every farm home should have a supply of ice? Aside altogether from the need of ice in order to keep milk and butter in good condition, there are various other ways in which the housewife may find ice a wonderful convenience. For instance, what can equal a heaping big dish of ice cream on a hot day? The crowns relish it and the children think it is "simply great." There are many ways of serving ice cream, such as with fresh fruit, apple pie, etc., but even by itself it is splendid to "top off" a meal. And yet there are many farms where ice cream is a rare or unknown dish, and the only time the children get it is when they make their infrequent visits to town.

Then how could that cold lemonade which we can send to the thirsty man in the harvest field, if we have ice with which to keep it cool? As an extra treat we may be able to give them iced butter milk, occasionally, or when they come in to a meal, instead

of serving hot tea, give it to them iced.

Vegetables, such as tomatoes or cucumbers, served right off the ice have a different taste from those which come warm from the garden. City folks consider the products from a farm garden in their freshness a treat in themselves, but we can add to their flavor considerably if we can bring them to the table right off ice. Sounds pretty good, doesn't it?

If we have a supply of ice, the best plan for the housewife is to have an ice box in a convenient spot. An inexpensive style of ice box was recently described in Kimball's Dairy Farmer, and we reproduce the description herewith for the benefit of our Folks:

Have a tinner make a galvanized box about 3 x 2 x 2, with a ledge around about two-thirds of the way up on the inside. The bottom should slope slightly to the center where the drain pipe, six inches long, is soldered. Build a loose board crate big enough so there will be a three-inch space on the sides, ends and bottom between the metal box and the wooden case. The inside of the wooden case should be covered with wire fly screen to hold in the saw dust which is packed in the open spaces. Where the drain pipe sticks out at the bottom it can be trapped with a tin can hung on wires. Wooden shelves are placed on the ledge in the box and the inside should receive two coats of white enamel paint. A hinged cover comes last, the inside of which should be insulated with about 50 thicknesses of newspaper covered with oilcloth and tacked down.

Having a supply of ice on hand in order to provide ice cream and the other appetizers which we have mentioned in this article, may seem a small thing. But it is just such little comforts as these which go to make up home life and add to the attractiveness of the farm. Now, the time, therefore, to begin talking of next summer's ice supply and to get the men interested so that they may construct an ice house of some kind before cold weather sets in.

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"You May Have Them Again To-morrow"

Strickland Gillilan.

My life has reached the sunset way;

'Mid the twilight shadows deep
The tender voice of my Father's love
Is lulling my soul to sleep.

My empty arms are hungering
For the forms once sheltered there,
But the Father has taken them all
Away—

They needed a kinder care.

One night when my life was young
and strong,
I was crooning a lullaby
To my sweet, wee tot, three summers
old.

When the baby began to cry
For the dummies my mother-hands
had made,
And I soothed her childish sorrow
With the words: "Your babies are
put away;

You may have them again, to-mor-
row."

And now, as I travel the sunset road
'Mid the twilight soft and deep,
While my empty arms are starving,
For the forms once hushed to sleep,
My Father in love bends over me
And there's hope instead of sorrow
As He says:—"Your babies are safe
with Me;

You may have them again to-
morrow."

A handy salt cellar for use around the stove can be made from a baking powder can by punching holes in the top. A can somewhat similar will also be useful for pepper.



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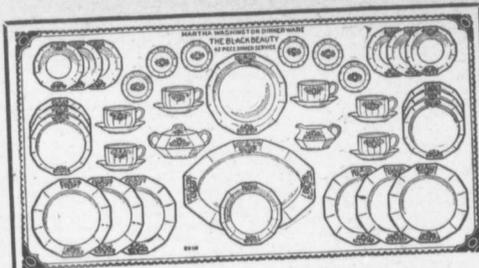
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Training the Children No. 9

Develop Deeper Natures
(Mrs. John Hammond.)

THE other day I was reciting to my little five-year-old son the old nursery rhyme:

"Here am I, little Jumping Joan.
When nobody's with me, I'm always alone."

"What does that mean?" asked the child.
"Why, when nobody's with you, aren't you always alone?" I questioned.

"No," he replied, "because God is always with me."
How shall we measure the significance of this early realization of our Father's presence everywhere? For with the knowledge that God is present to help at all times, our children lose the sense of fear—and there is no greater lesson that we can impart to them. From earliest infancy we can begin to awaken in our children the sense of the all-presence of God.

Froebel, in his "Mother Play," a series of songs and games which he devised as illustrative of how a mother should play with her children, always seeks to make her look from the things which are seen and temporal

and expect them to lay the foundations of character. The home is the place where this must be done and it is for us to prove to our children that it is only as we are good ourselves that we help those around us. Then, imitation being one of the highest and strongest instincts of childhood, our little ones, taking knowledge of us, begin practicing in their own lives what they see in ours. And living in an atmosphere of love and harmony, they come early to understand that love is the greatest power in the world.

Nine Teachers in Two Years

By Marion Dallas.

"I AM the fountain of progress, the headwaters of civilization. I am dedicated to mankind and consecrated to its service. I hold within me knowledge and knowledge is the key to all things. I am the rock upon which the government is founded. I am the corner stone of the nation. My service is great, my rewards small, but I serve all alike."

The above quotation signifies the large place which the rural school is designed to hold in our communities. The "Little Red Schoolhouse" shows in the illustration on the page its site in a small village in Ontario. There is something radically wrong, however, with a Provincial Educational System which makes possible the tragedy of nine teachers in this school in two years. The local trustees of



The Tragedy of "The Little Red Schoolhouse."

This school has had nine teachers in two years; a hard blow to any school where it is little wonder that the surroundings are anything but attractive when laboring under such a handicap. This is a school in the province of Ontario. Miss Dallas "talks" about it in an article adjoining.

to the things which are unseen and eternal; the father is to manifest so much patience and love towards his little ones as to make the transition of ideas from the earthly to the heavenly Father simple and natural. The child is to be trained to look upon himself as a necessary and responsible part of a great whole, and to be taught that the whole can only be as strong as the weakest link. This is the basic thought of all true community consciousness. And from his earliest infancy he is to be taught to show gratitude to all who aid in ministering to his needs.

In these days, when so much is written about senseless taxation, and so much is done to meet the physical and mental needs of our children both in the home and at school, there is a tendency to forget the teachings of Froebel and to give our children only a partial education, an education which stops short of their spiritual needs.

A momentous question, and one which all parents must answer individually, is "Do we want our children to be merely healthy little animals with a certain amount of superficial learning, or do we wish to develop their deeper natures so that one day they may be able to take their place in the world, and through their spiritual insight into things, become powers for good in the community?" For parents cannot turn over their own responsibilities to the teachers

a minimum of \$500, but loose provincial administration causes poor oversight, and for two years at least, the children have been under a heavy handicap. The average wage earned in a farming community has no "pull" to have these matters adjusted, and inexperienced trustees protest of an inspection officer, who in a spirit of preservation does not know the best to go any farther than a pipe hole in his desk, and the situation drags on from year to year. The children in this particular school are children in this particular school who have talents above the average and whose parents wish them to be at least pass the entrance, but who means do not allow them to go to the county town some miles distant. Hon. Dr. Coyle could do no better than to foster the new spirit in Canada by taking personal interest in this representative rural school.

The lack of some resourceful teacher's initiative is in evidence by the lack of trees or shrubbery in the school grounds. Surely the only representative of so-called scenic education deserves something better in the hands of the trustees. And leadership is the solution of every problem, and in the rural school the teacher is the controlling factor. Nine teachers in two years explains why in this community the children are not as "backward," and the school environment so unattractive. It is an ultimate analysis the "system" which makes it possible is primarily the blame.

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M. Purdy,
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Heads and Hearts

(Concluded from page 16.)

"I think I'm all right—almost warm, but dreadfully thirsty."

"Oh!—certainly—one moment."

"Oh, do be careful," she cried, as he left the glare.

He came staggering back, his soft felt hat half full of water. "I'm afraid it's running through," he said, weakly, "but you'd better not drink much anyway. It's too chilly."

"The operation was not easy, but she got a sip or two, drenching his, not her own, clothing."

"Take back your things at once," she commanded. "Oh, how could you!"

"She gave a little sob."

He was bending over the fire again, and she saw him quite clearly. He felt her eyes on him.

"I wonder whether a wet hat is better than none—in the circumstances," he said, with all the jocularity of a broken heart. "I'll put the hat to the fire to dry, I think."

There was a longish silence, broken by the girl.

"The wind is changing. It will clear soon, and there is a moon to-night. We shall be able to—"

Her voice gave way.

"Oh, don't!" he cried. "I know I'm a piteous sight and all that." He crammed the wet hat on his head.

"Please take it off," she sobbed; "it will give you neuralgia and all sorts of things, and I—I like you best without it."

"What?" Again he sneezed.

"Mr. Preston," she said, struggling to control herself, "I want to shake hands with you. You have saved my life."

"Nonsense! Won't you put on your boots?" He did not look at her.

"Let us be honest with each other. She picked several scraps of a substance neither vegetable nor mineral from her serge skirt. She had been rearranging them for some little time. "I believe I should have guessed without these," she said, softly.

In spite of himself he turned his eyes towards her.

"The fire wouldn't go—I was never good at making a fire," he said, apologetically.

She leaned forward, holding out her hand.

Willy could not resist taking it. And later—well, that is his affair, and Marjorie's.—Weldon's Journal.

Making Bread With Substitutes

RECIPES prepared by Miss Alice M. Purdy, Flour Testing Branch, Department of Chemistry, Ontario Agricultural College, Guelph, are as follows:

The use of substitutes has presented new problems to the woman who bakes her own bread but all difficulties may be overcome if a few simple rules are kept in mind in baking a home-made loaf:

(1) The sponge should be made in the usual way, using all standard flour. The wheat substitute should be added to the dough stage, allowing it less time to rise from then on, because the substitutes are deficient in strength.

(2) A strong, healthy fermentation in the sponge stage where all standard flour is used and a shortening of the time in the dough stage after the wheat substitute has been added are two factors that help to ensure a light, palatable loaf of good texture.

(3) Because of the absence of gluten in all the substitutes, with the exception of rye, the dough should not get too much kneading but just enough to give it a smooth consistency.

(4) Potato water and a little mashed potato (cooked) in the sponge furnish good yeast food. This takes the place of sugar in war-time wheat substitute breads.

(5) Honey, molasses, corn or maple syrup are satisfactory substitutes for sugar in the preparation of these

breads. If added to the dough in small quantities they improve the flavor of the bread without impairing too sweet a taste.

(6) More yeast should be used with substitutes than with all wheat flour.

(7) The sponge or dough should not be chilled or over heated at any stage.

Sponge: General proportions—any mixture of this amount may be used: One cup scalded and cooled sweet milk.

One cup lukewarm potato water containing from one-quarter to one-third of a cup of cooked mashed potatoes.

One teaspoon salt. Sift and add standard flour to these ingredients until you get the consistency of pancake batter. If your flour is cold be sure to warm it before you start making bread. Add your favorite yeast to the batter, prepared as required, just before starting to beat.

The amount of yeast used depends upon the length of time the sponge is to be allowed to rise. Over night will require much less than day-time or five-hour bread. Beat the sponge until smooth and elastic. Cover and set

aside in a warm, draught free place until light and foamy.

N.B.—Directions for preparation of various kinds of yeast:—

(1) Compressed yeast should be dissolved in lukewarm water.

(2) Dry yeast (Royal Yeast) should be dissolved and fermented according to the directions on the yeast cake box.

(3) Home-made yeast should be warmed in a dish of warm water.

Dough Stage:—One tablespoon warm shortening. One tablespoon sweetening (honey or syrup). One teaspoon salt.

Add these ingredients to the risen sponge and mix in sufficient wheat and substitute flour to make the dough stiff enough not to stick to the hands or board but just sufficiently slack to handle without stickiness. Knead lightly until smooth and well mixed.

Place in a warm, lightly greased dish, cover and put in a draught free place to rise until practically double in bulk. Be careful not to let it rise too high. Knead down in the dish and put it aside to rise again, using the same

precaution in seeing that it does not over rise. Remove from the dish.

Knead just enough to remove the air bubbles. Portion and shape for well greased bake pans filling them about two-thirds full. When it has risen to about two-thirds its original size, bake in a moderate oven for at least an hour. Keep the dough warm by avoiding draughts and have it sufficiently moist to prevent a dry crust forming on the top—a covered box or a cup-board with a dish of steaming water answers this purpose well.

N.B.—The wheat and substitute flour may be mixed in the proportion desired. If 20 per cent substitution with rye, barley, oat, corn or other substitute is aimed at, the flour used in making the dough should be blended so as to take into account the wheat flour used in making the sponge. The point of this is to have one part of substitute flour for every four parts of wheat flour—one cup to four.

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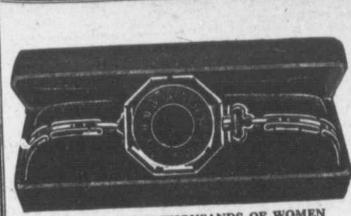
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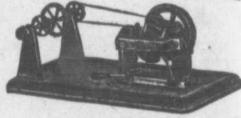
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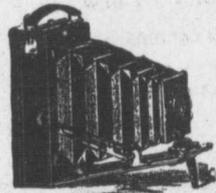
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Dress Children in Bright, Becoming Shades

Farm and Dairy patterns shown in these columns are especially prepared for our Women Folk. They can be relied upon to be the latest mode and include the most modern features of the paper pattern. When sending your order please be careful to state bust or waist measure for adults, for children and the number of the pattern described. Orders are filled within one week to 15 days after receipt. Price of all patterns to Our Women Folk, 10 cents each. Address orders to Eastern Dept., Farm and Dairy, Toronto, Ont.



WE are now getting around to the season of the year when the home dressmaker finds more time at her disposal in which to start the sewing machine a-stitching. The fall is such a busy time that we often find it necessary to put off our sewing from day to day until we suddenly find ourselves into the month of November and we begin to look for cold weather. With cold weather comes the necessity of having both children and grown-ups warmly clad. There is one point worthy of note in connection with children's dresses. That is, dull uninteresting colors should not be used. Even if the color does fade, it is better to have the dress bright and attractive for a time, rather than always ugly.

2625—A serviceable coat. This coat is simply constructed and of a style that should prove very practical and comfortable for the small girl. It would probably be better for fall and spring on account of the collar than for real cold weather, although it would be quite possible to have the collar made to fasten up closely around the neck. Five sizes: 4, 6, 8, 10 and 12 years.

2617—A Simple Dress—A dress made after this style should give a great deal of satisfaction to the wearer. The high waisted effect is becoming to many young girls. The collar is especially suited to those who do not care for low necked dresses in cold weather. Four sizes: 14, 16, 18 and 20 years.

2641-2639—A Charming Costume—There is good style to this costume and yet it is not elaborate. The square neck effect is good and the vest would look well in Georgette material to match the dress, or in white. The collar and belt are also attractive features. This costume calls for two patterns, 10 cents for each. The blouse is cut in sizes from 24 to 46 inches bust measure and the skirt, from 22 to 34 inches waist measure.

2638—A House Dress—Burduring on the coat, middie dress, this style would appeal to many of our younger folk. The skirt is laid in pleats, while pockets and belt are the main trimming features in the blouse. Four sizes: 8, 10, 12 and 14 years.

2623—Lady's Shirt Waist.—Nothing is so essential in the wardrobe as a few attractive blouses. This one is attractively constructed, but shows good style. If desired the collar and cuffs might be fashioned from white silk and the blouse itself from some of the pretty colored silks. Seven sizes: 34 to 46 inches bust measure.

2642—Lady's Apron.—This apron, while not a covering, is even more attractive than many of that type. The straps over the shoulders and the back closing are quite unique. Four sizes: small, medium, large and extra large.

2624—Girl's Dress.—Is this not a chic style for the young lady of the family? It really looks rather quaint and reminds us of grandmother's dresses fastening down the front with buttons closely set, but the other style features which are added make it quite up-to-date. Four sizes: 6, 8, 10 and 12 years.

2636—Girl's Dress.—A combination of materials is worked into this costume in rather an unusual way. It might be possible to have two different materials for the upper portion and thus have a change in costume occasionally by buttoning on to the skirt, the different bottom portion. Four sizes: 8, 10, 12 and 14 years.

2626—A Simple Dress.—Nothing could be more more simple and at the same time attractive than this simple working dress. The contrasting material forms a splendid trimming and by having the cuffs of dark color, they will not be so easily soiled. Seven sizes, 24 to 46 inches bust measure.

CATALOGUE NOTICE.

Send 5c in silver or stamps for Up-to-Date Fall and Winter, 1918-1919 Catalogue, containing 550 designs of Ladies', Misses' and Children's Patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating 30 of the various, simple stitches) all valuable hints to the home dressmaker.

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factories I see one reason why our profession is not better remunerated. The unfortunate thing about it is that the business in this country got started wrong. Factories were built by private enterprise and began to compete with each other for the farmers' business. In this competition many factory men were ruined trying to pay so much a hundred weight for milk. Then a change was made to the pound basis of paying and conditions improved somewhat. Assistants, at the time I graduated from a factory, however, were learning the business faster than factories were being erected for them. According to their factories for themselves, lowered the output per factory and in some cases lowered the price for making. Consequently farmers have always got their cheese made for them too cheaply and I am afraid it will take a lot of education to induce them to pay for the job that it is really worth.

More Dairy Cows

(Continued from page 4.)

years, has developed a total dependence upon cattle for the rearing of its young. No greater catastrophe can happen to a people than the loss of its dairy herds, for the total loss of dairy produce means the total extinction of a people."

Few people in Manitoba understand how greatly the dairy herds of Europe have been reduced during the war. Mr. Hoover has said this also:—"I doubt whether to-day the dairy production of Europe as a whole is 50 per cent of the pre-war normal, that of the allies 50 per cent of the normal. After the war Europe must re-stock her diminished herds. She must look to America for a sufficient supply of dairy cattle to give her her normal percentage."

According to official figures, the dairy herds of Denmark, France, United Kingdom, Belgium and Serbia have decreased three and one-half million head.

Part of the damage done by war can be remedied immediately by the firing ceases. But this does not apply to restocking a country with animals. A milking cow, if needed at once, must be purchased already mature and in milking form.

In many other parts of North America there seems to be a heener of what is likely to happen in the dairy world than there is here. That a large number of dairy animals will be needed from America seems to be practically conclusive. No matter where these are purchased, it will affect the value of dairy cattle in other parts of the continent. With this in mind, it would seem to be the part of wisdom to conserve our dairy animals carefully.

Churning Difficulties

Churning difficulties are not as a rule associated with such weather as we have recently experienced. Of course such difficulties are due solely to temperatures, though probably the majority of the cases where butter is slow to break and gather are caused by too cold thin cream. Also the smaller fat globules usually predominating toward the end of the season are not so easily gathered into butter as the larger fat globules of the early lactation period.

We would therefore group as the more prominent causes of difficult churning—too thin cream, too cold temperatures and hard, small butter-fat globules. When these are the probable causes it is well to ripen and churn at slightly higher temperatures, using as much starter as the thickness of the cream will permit. If churn room is very cold use warm water to warm up the churn before cream is added.

Care should be used, when churning difficulties are met, to have cream and milk mixed and uniformly cooled especially if various lots of cream varying temperatures and acidities are run into the same vat. Overloading the churn should also be avoided.

In the case of foamy cream the latest advice on its causes and prevention is contained in a bulletin issued in the spring by the Minnesota Dairy and Food Department. The bulletin says:

"This trouble is caused by the action on the cream of undesirable bacteria or yeast spores, or by too low a temperature and too much cream in the churn, which should be held to 25 degrees. Some operators add 15 to 25 pounds of salt to the cream, which injures the buttermilk and does not help much. Others add a quantity of hot water, which will raise the temperature and assist the churning process. Letting the churn stand still for an hour or so often helps materially. The better way, however, is to put half of the cream back in the vat and make two churnings. Drawing off a few cans of cream and putting them back in the churn as soon as the foam has gone down somewhat, usually causes too great a loss in the buttermilk.—N. Y. Produce Review.

Silage and the Milk Flow

Silage and a continued milk flow seem to go together. The cream and milk supply at creameries, shipping stations and condenseries, is now at the low ebb. The supply has gradually dropped during the months of September and October. The cause has been practically the same as in previous years—insufficient pasturage and not using enough succulent feeds or silage as a supplement. Dairy men who make a practice of supplementing their short pastures in the fall with some green feed or silage report that they rarely note any appreciable decrease in the milk flow. Many of the dairymen who have silage do not have enough, and the supply they have is held for winter feeding. Supplemental feeding of silage during the short and dry pasture periods would increase the average dairymen's profits at least 20 per cent. Prices are now high for all dairy products and this is the time to be selling milk and cream.

Cows once down in their milk flow cannot be brought back to full production. When the cows drop away in flesh and condition in the late summer it necessarily means that the body weight lost must be replaced with high-priced feeds and concentrates later in the winter. Delay in opening the silo, as a precaution against winter shortages, may not always be the best policy.—W. S. L.

It's better for the cows to spray on some fly repellent than to tie their tails or thump them with the milking stool.

BOWES

Butter Sets the Standard

Dairymen—

We need a larger supply of cream in cans or our ever increasing high-class city trade. Measure your milk ourselves on the service we are able to give our permanent shippers. If you are apt to ship extra cream or fresh eggs, write us today.

Bowes Creamery Co., Ltd. - Toronto

- CANS SUPPLIED
- EXPRESS PAID
- ACCURATE TESTS
- PROMPT RETURNS
- EGG CASES SUPPLIED

When The Factory Closes

In a few weeks scores of the Cheese and Butter Factories over Ontario and Quebec will be closing for the season. At that time hundreds of the patrons of these will desire to form new connections for the shipping of their milk quantities. The following list of firms are in a position to handle large quantities. We suggest that you patronize them.

MILK! CREAM

If you want a permanent market for both your cream and milk—winter and summer—ship it to Peterboro—the "Electric City"—the hub of central Ontario. We can take large quantities. Splendid rail connection in every direction—C. P. R. and G. T. R.

If you live within 100 miles of Peterboro* write to-night for full shipping terms, prices, etc.

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Operating Milk Condensary, Creamery, Ice Cream Plant and city milk supply.

CREAM WANTED

WE PAY EXPRESS CHARGES

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We buy cream for butter-making purposes by percentage of Butter Fat, and give a test of each individual shipment.

We supply 8-gallon or 10-gallon cans for shipping and pay express charges within a 300-mile radius of Toronto.

Drop us a card and we shall be pleased to give prices and further information.

THE T. EATON CO LIMITED
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CREAM WANTED

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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This is to advise our present shippers and all others who may be interested in a market for cream that a very decided

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Drop a line, and we'll tell you all about it—and our service, too.

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OAK PAIK NOTES.

It was with regret that readers of Farm and Dairy in general, and Holstein breeders in particular, learned some months ago of the death of Mr. W. H. Bailey and Son, Oak Park Stock Farm, Paris, Ont. Although actively engaged in farming operations only for the past five years, the late Mr. Bailey showed an insight into live stock matters and an aptitude to farm management which placed him in a position where he was recognized as one of the leading farmers and Holstein breeders of Canada. The Bailey farm, owing to the live stock propensities of the present manager of the farm, Mr. H. E. Bailey, is said to be located "somewhere on the land." Oak Park Stock Farm was chosen.

During the past five years they have been gradually working their way to the front until they have been recognized as among the leading breeders. They have a record of merit worth noting. One of the animals which has done more, possibly, than any other famous prize Oak Park Stock Farm "on the map" has been that noted champion Dutchland Hempstead 2nd, whose sire has been the winner of the grand championship at Toronto Exhibition for our years in succession and he holds distinction of being the only bull in the Americas who has been exhibited at the latter show without being defeated.

Not only in the matter of the herd sire has the breed a noted one. The females also have been winners of the highest prize on many occasions and upon visiting the farm year after year a noticeable improvement is evident in the general character of the herd. This improvement was particularly noticeable on the occasion of a recent visit by a representative of Farm and Dairy.

In talking to Mr. Harry Bailey, who at the death of his father took over the entire responsibility of the big farm, he said: "Our other chief aim is high production. We aim to have no cow in our herd with less than 45 lbs. of milk a day, and in accordance with this result we will use no sire which does not set a record of at least 100 lbs. of milk per day and who, with a normal per cent of butter fat, will not test up to 30 lbs. of butter a week."

The Present Herd.

The present herd consists of 24 mature cows, with official records from 50 lbs. per day upwards. From these cows he has been using bulls, using such sires as Lakewest Dutchland Hempstead 2nd, whose mate was 27 1/2 lbs. of better in cream, and while on grass and who now averages just over 4 1/2 lbs. a day, three sisters with records over 20 lbs. and one with over 35 lbs. Her sire has eleven daughters with records over 100 lbs. per day. "Dutch" is sired by Dutchland Colartha 3rd, the sire of Lakewest Dutchland 2nd, who has 43 1/2 lbs. of better in seven days, Canadian champion. Also Lakewest Dutchland Queen, who has a world's record for three-quarter tones, 217 lbs. of better in seven days. Also Lakewest Dutchland 2nd, Canadian champion, 217 lbs. as a junior two-year-old, also being a world's record. He is also a grandson of Dutchland Johanna 2nd, who has 19 daughters with records over 30 lbs. in seven days and 27 with over 50 lbs. milk in seven days.

The brother sire is Wm. Sylvia Reeves, whose dam is Helen Sylvia, Bessie Pouch, and whom dam is Helena Reeves. He has five sisters with records averaging 115 lbs. milk per day. His dam has over 100 lbs. and she has two daughters with over 100 lbs. This young sire carries 62 per cent the blood of Max Boyo Sylvia. He will be used on the remainder of the senior sire and the foundation cows.

Another sire that is playing an important part in the building up of the herd is Alpha Joeie King, the \$25,000 bull. He has been in the farm several months last year. His calves are now coming on and are a new strain of blood. He has a dam, one a world record three-year-old with 43 lbs. in seven days, another. Tater also made a record of 60 1/2 lbs. butter and 78 1/2 lbs. milk as a four-year-old. This cow was sold for \$10,000.

In looking through the herd recently we were very much impressed by the appearance of the females of the herd. He pointed with considerable pride to a six-year-old which he had just bought, and who is a half sister to Max Boyo Sylvia, the "Dutch" sire. This is a Prize. She is of great size, good udder, and is due early in spring to the junior cow. This will give her offspring the appearance of the females of the herd. He pointed with considerable pride to a six-year-old which he had just bought, and who is a half sister to Max Boyo Sylvia, the "Dutch" sire. This is a Prize. She is of great size, good udder, and is due early in spring to the junior cow. This will give her offspring the appearance of the females of the herd.

Not entirely satisfied with seven-day work alone, Harry this year is planning to start in the P. F. E. contest. He has a 15-year-old cow, and is expecting to give her a final with a record of about \$100,000 on the day of milking. A few bulls of the other good ones in the herd are also being used. He has a 15-year-old cow, and is expecting to give her a final with a record of about \$100,000 on the day of milking. A few bulls of the other good ones in the herd are also being used. He has a 15-year-old cow, and is expecting to give her a final with a record of about \$100,000 on the day of milking. A few bulls of the other good ones in the herd are also being used.

One of the daughters of old "Dutch" is giving a good account of herself as Dutchland Great Queen, who has two-year-old. One of the old cows is Lakewest Mercedes of Liverpool, with 26 lbs. of butter in seven days and 44 lbs. of milk in one day.

Another that is highly valued is K. H. Millington Gertrude who is a double grand-daughter of King Sledge. She has a record of over 70 lbs. per day at two years. This cow has had dropped a heifer calf by that noted sire, the Mighty Monarch, whose three nearest dams average five cwt. of butter in seven days. Another is a Lady Grace Iowa who has given 41 lbs. a day as a four-year-old, and Lakewest Hungarian Wayne, who has 27 1/2 lbs. in seven days.

The lowest mature record for one day's milk in the herd is 75 1/2 lbs. This record is by Laura Neopolitan Bue, but by her appearance she should go still higher than her sister, Dutchland 2nd, who has given 25 1/2 lbs. butter in one day and 100 lbs. of milk in one day. Another is Daisy DeKol, 87 1/2 lbs. milk in one day as a junior three-year-old. Also Queen Lyons Schelling with 71 lbs. as a junior three-year-old. Rideau Pierre de Kol has 55 lbs. and Villa Veer year-old. 71 lbs. as a junior four-year-old.

During the next two months Mr. Bailey is offering some young stock that are of promising quality. They form a dam. Some of the bulls are of the best record dams averaging 55 lbs. in seven days. Mr. Bailey claims to have the only bull in Canada whose sire represents the sire of Canada's only 40-lb. cow, Lakewest Dutchland 2nd, and Max Boyo Sylvia.

Coming Fall Sales

NOVEMBER 21ST.—A. E. Smith & Son, Millgrove, Ont. will disperse their entire herd of registered Holsteins by public auction.

NOVEMBER 27TH. — Dundas-Genieve's Auction.

NOVEMBER 27TH.—London District Holstein Breeders' Club.

DECEMBER 3RD. — Acharat Bros., Springville, Ontario, Holsteins.

DECEMBER 4TH.—Erie Kitchin, St. George, Ontario, Pure-bred Holsteins.

DECEMBER 5TH.—Egin Park Holstein Breeders' Club, Ontario, Holsteins at St. Thomas.

DECEMBER 10TH.—R. H. P. Fry, Willow Grove Stock Farm, R. R. 1, Drumbo, Ontario, Holsteins.

DECEMBER 17TH. — Walkand County Holstein Breeders' Club.

DECEMBER 17TH.—Mr. Fred Rowe, of Oak's training, will disperse his Registered Holstein herd.

DECEMBER 17TH. — Oxford County Holstein Breeders' Club.

DECEMBER 17TH.—Hiram County Holstein Club.

DECEMBER 19TH. — Hiram County Holstein Breeders' Association.

DECEMBER 19TH.—J. W. Johnson, R. R. No. 2, Hawkesbury, Ontario, Holsteins.

JANUARY 15, 1919.—Geo. J. Barton, R. R. 3, Brantford, Sale of Holsteins.

FIRST SON IN CANADA OF THE ONLY 50-LB. BULL

ON Oct. 29th at Lennox Farms on the east bank of the beautiful Niagara River) the first son of the only 50-lb. bull, was born. To say that he is a real champion is putting it all together too mildly.

His sire is the sire of "Reggie Payne Johanna" (50.8) and "Bag Anna" (50.4) heifer, and the only 42-lb. year-old heifer in the world. A grandson of his sires ought to be worth a mint of money, if even from only a reasonable good dam.

Now as to his dam—She made last year at first freshening, the record of 23 1/2 butts and 69.9 milk in 7 days as a senior two-year-old. At the time of making this was a world's record for a 2-year-old with first calf.

The two nearest dams of this royal-blood chap, average 48.8 butter in seven days. The three nearest averages 29.9 lbs. Her individuality and whole make-up is keeping with his extraordinary breeding.

We have another young bull at "Lennox" that we believe next to the above in point of high record breeding. He is sired by "The Mighty Monarch" and is a few months ago for \$40,000, whose sire is the 50-lb. daughter of the only 50-lb. cow. The dam of this champion made 23 1/2 at her last freshening as a junior two-year-old. We are just now making this record, especially when we note that she has a 37-lb. 3-year-old and a 32-lb. 4-year-old heifer (the latter is in our herd and is in calf to the 50-lb. bull). The six nearest dams of this youngster average 33.8 butter and 4.64 per cent fat. We believe this calf (now eight months old) is the typical animal we ever owned.—Lennox Stock Farm.

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FOR SALE

Two young registered Holstein bulls, ready for service. One twice a grand son of a 56,000 lb. cow, the other a son of a 21 lb. 3-year-old. Both extra good individuals and bred to sell quick. For further information and extended pedigree, apply to

N. P. SAGER

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BREEDERS OF DAIRY CATTLE

Have you planned your announcements for the Xmas and Breeders' Number of Farm and Dairy? Then don't delay it a day longer. It all takes time to get cuts made, copy set up neatly, etc. and we don't want to be rushed at the last moment. There are always a few who will leave it off to the last moment. Don't you be one of them. Get your photos and copy to us without delay. This Breeders' Issue is our greatest stock selling number. Don't let your herd be omitted from it.

C. G. McKILLICAN, LIVE STOCK DEPARTMENT

FARM AND DAIRY - - PETERBORO, ONT.

THERE IS ONE BOOK

That we would like to sell in the home of every dairy farmer in Canada. It covers every subject in dairying, from growing the feed—to testing your herd. The price of the book can be saved in two weeks' time from the economical feeding methods outlined in it. "DAIRY FARMING," by Eckles & Warren, tells how to balance the feed—what feeds to buy when prices are high—the cheapest feeds to grow on your own farm—and a score of other subjects. It is a very readable book for the practical farmer. Well bound in linen.

Price is but \$1.50.

Book Dept.

FARM & DAIRY

Peterboro, Ont.

MARKET REVIEW AND FORECAST

TORONTO, Nov. 18.—Wheat is here, for the time being at least. The markets generally have adjusted themselves rapidly to the changed conditions and there were few changes to make. Prices had been somewhat lower in weeks and values had been determined accordingly. Even at this, however, all factors concerning the situation cannot be given their exact valuation. For one thing, there is practically no wheat available as to the supplies of wheat, shipped and available for export, which have been stored up in the southern hemisphere. Nor are we able to estimate with any degree of accuracy what amount of shipping can be spared even now to take care of the situation in the north, but it will be several weeks before the markets have fully adjusted themselves to the conditions of the world.

The fall weather has been remarkable for its general mildness. Conditions have been such that growing and more ground has been turned over to date than for a couple of years back. There has been a general shortage of help for threshing and late sowing and there is considerable delay in getting the work in south western Ontario; there is still much corn to be hauled, because of the scarcity of labor.

Coarse grains have held firm. Hay is strong because of the low prices. Low prices are firm; poultry setting at reduced prices. There are no changes of note in the prices of the various live stock is selling at slightly lower levels.

All fall work nearly completed, wheat is moving more frequently to country areas and from there to the coast. It will be fairly heavy. Some Australian wheat is reported as arriving at Pacific ports. The United States Department of Agriculture has announced that there will be more wheat available from the southern hemisphere than any other kind of foodstuff this year. This, however, cannot affect the price of this year's wheat crop, which has already been guaranteed both in this country and in the United States. In the U. S. it will be remembered, a minimum price has been guaranteed for the 1919 crop as well. Apparently, however, even during on all months, there will be a full demand for the wheat of both this year's crop and next. Fixed prices are maintained.

Manitoba Wheat—In store, Port William, nominal (not including 2½¢ tax); No. 1, northern, \$2.14; No. 2, northern, \$2.11; No. 3, northern, \$2.17; No. 4, northern, \$2.15. Ontario Wheat—(14½¢ shipping points, according to freight)—No. 1 winter, \$2.10 to \$2.11; No. 2 winter, \$2.11 to \$2.12; No. 3 winter, \$2.12 to \$2.13; No. 1 spring, \$2.05 to \$2.11; No. 2 spring, \$2.06 to \$2.14; No. 3 spring, \$2.05 to \$2.10.

COARSE GRAINS

Deliveries of coarse grains are increasing, barley coming along more freely than oats. Barley, the latter, however, seem to be ample for the trade. The tendency of the market for Western oats seems to be towards slightly higher prices. Ontario oats have also moved up somewhat and are active. Possibilities of a big demand for American corn from Europe has strengthened the corn market, which closed at Chicago for \$1.37 for November corn and \$1.38 for December. Quotations here follow:

Table with 2 columns: Item and Price. Includes 'TYPEWRITTEN PEDIGRES 4 GENERATIONS' and '1 COPY \$1.00'.



REGISTERED HOLSTEINS

FOR SALE, Our Herd Sire King of the Tensens No. 2979 His Dam and Sire's Dam Average: Milk 144.40, Butter 7 days 24.75, Fat 27.20, Solids 28.75, Fat 28.75, Milk 274.00, Butter 30 days 28.75, Fat 28.75, Solids 28.75 and plenty more official bulls. Each year 1.00. Apply to the advertiser and satisfaction guaranteed. Write for extended pedigrees.

LYNN RIVER STOCK FARM Alex. Wallace, Successor.

Can. C.W. No. 2, in store, Port William, \$24.00; No. 3, 24.00; extra No. 2, feed, \$14.00; No. 1, feed, \$14.00; Ontario No. 2, 15c to 16c; No. 3, 15c to 16c; corn, No. 2, \$1.55; sample corn, \$1.55; rye, \$1.55; rye, \$1.55; peas, \$2.30; buckwheat, \$1.80; rye, \$1.55; No. 1, extra No. 2, feed, \$14.00; No. 3, feed, \$14.00; Ontario No. 2, 93c; No. 3, 93c; No. 1, white, \$1.47; Ontario barley, \$1.27 to \$1.32.

MILL FEEDS.

Supplies of mill feeds are continually on the decrease, but demand is always sufficient to take up all supplies. In Canada, \$7.25; extra, \$8.25. Montreal quotations are 4c more with mouline, \$6.8 to \$7.0.

HAY AND STRAW.

The demand for hay and straw is with possibilities of shipment abroad. On the market No. 1 hay quoted \$23 to \$22; mixed, \$20 to \$21.50 and straw in car lots \$10 to \$10.50. Montreal quotes No. 2 hay, per ton in our lots, \$24 to \$25.

POTATOES, APPLES AND BEANS.

The potato market is easy, Ontario new potatoes being quoted in car lots, \$10 to \$11. At Montreal a firmer feeling is being noted. In the United States, wholesale jobbing way at 21 and Quebec at 21.50.

Good apples, \$1.75. The Norfolk Fruit Growers' Association has sent about 700 cases of apples to the West at prices varying from \$4.50 to \$5.50 per bushel for No. 1, according to variety. Some Eastern markets, No. 1 apples have sold retail at \$9 a bushel. On the Toronto wholesale market, No. 1 apples are quoted in 11 qt. baskets at 25c to 35c; British Columbia, McIntosh and Jonathan in boxes, \$2 to \$2.25.

Canadian prairie beans are quoted here at \$5.50 to \$7.50; foreign hand picked, \$6.75 to \$7.

EGGS AND POULTRY.

Dealers frequently report an unprecedented demand for eggs and the appreciation of some in that the rate they are moving is also considerable. Some scarce stocks will be sold out by the first of the year. The effect of such a market is prohibitive. The future market is always a possibility of movement affecting the market. Fresh eggs are very light, but more pullet eggs are now on the market, which would indicate that production is being increased. Vancouver is the first point which reports dollar eggs, fresh, \$1.00 to \$1.10. Prices as country points in Ontario vary from 55c to 65c for special and 51c to 55c for extra.

Poultry markets are in anything but satisfactory shape. Particularly in this case with live poultry. The difficulty of securing drivers has caused several of the large packers to cease quoting for live birds. There is a shortage of fresh eggs in the storage. A large portion of the receipts are in stretched condition and a large quantity have been returned during the week.

Hens, 4½ lbs. Live weight Dressed, 24c to 25c; 4½ lbs. Live weight, 24c to 25c; Hens, 4½ and over 24c to 25c; 2½ lbs. Spring chickens 25c to 26c; 2½ lbs. Roosters 18c to 20c; 2½ lbs. Ducks 22c to 24c; 2½ lbs. Turkeys 28c to 30c to 32c.

COUNTRY HIDES.

Beef hides, green, 17c; part cured, 18c to 19c; cured, 18c to 21c; paucor or bob calf, 21c to 23c; horse hides, 12c to 14c; No. 1, \$6.50 to \$7; No. 2, \$5.50 to \$6.50; No. 3, \$4.50 to \$5.50; No. 4, \$3.50 to \$4.50; farmer's stock, 30c per pound.

DAIRY PRODUCE.

Toronto packing houses are assuming an almost indifferent attitude towards the butter market since restrictions were market will act under the influence of people. Some of them are offering their choice stocks at 51c to 52c, accepting very little. To the retail trade, creamery grades are quoted 51c to 52c; private, 51c to 52c; dairy, private, 51c to 52c; and baker's, 30c to 35c. The Montreal market is in fact, a market for creamery butter quoted at 49c to 50c. Receipts of Nov. 9th were 1,087 tons and an increase of 10,622 packages as compared with the same week last year. Prices are higher in the United States. Chicago creamery butter 52c to 53c and New York 51c to 52c.

These prices have advanced to the retail trade. Very few are quoted, but are now in operation and during the week, prices paid were a trifle lower if anything. At the same time, the Kingston brand, for instance, there was a decline of 1c to 1½c. Striking, 1-16c. Cheese is quoted to the retail trade here at 25c to 26c for new large; spring make, 27c to 27½c.

LIVE STOCK.

The holiday on Nov. 11 resulted in a somewhat constrained condition of the live stock market during all last week. Very few choice heavy cattle were on sale, and \$23.50 was the top price re-

The Second Semi Annual CONSIGNMENT SHOW OF THE London District HOLSTEIN Breeder's Club LONDON, Ont. at the BRUNSWICK HOTEL STABLES, Cor. Talbot & York Sts. on NOVEMBER 27th, at 1.00 p.m. There will be offered 50 head of choice animals including sons and daughters of FINDERE King May Payne, the 34 pound bull and granddaughters of the great King Segis, Hill Crest Count Echo, Baron Colantha Payne and other high record sires. SALE WILL BE HELD UNDER COVER. Send for Catalogue to BE SURE TO COME. Fred. W. Bodkin, Sec. L. H. Lipsitt, T. Merritt Moore, R. R. 2, Wilton Grove, Ont. Sales Mgr. Auctioneer.

His 2 Nearest Dams Average 38.82 His dam, sire's dam, grand sire's dam and grand great sire's dam, average 38.60 lbs. butter in seven days, and over 113 lbs. milk in one day, which is not equalled by any other bull in Canada. His name is ORMSBY JANE BURKIE. His services may be hired by YOU. Cows and heifers in calf to him for sale. If you need a HOLSTEIN BULL write us. R. M. HOLTSBY, R. R. No. 4, PORT PERRY, ONT.

The "O'Reilly Stock Farm" Holsteins 57.23 lbs. milk and 1.050 lbs. butter in 1 year is average for the two smartest heifers of a beautiful bull we are offering at the present time. His dam is a 34 pound cow, Calamity Johanna No. 6, and his sire's dam is the 29.900-lb. cow, Hesterwood. He is about three months old, an AI individual and nicely marked. This line of breeding is hard to excel. Write us at once. HE IS PRICED REASONABLE. JOSEPH O'REILLY R.R. No. 9 PETERBORO, ONT. —CLOVER BAR STOCK FARM OFFERS— A few choice young bulls for sale, from heavy producing dams, sired by a son of Frank 3rd. Write now for description, photo and price. R. SMITH, R. R. NO. 3, STRATFORD, ONT.

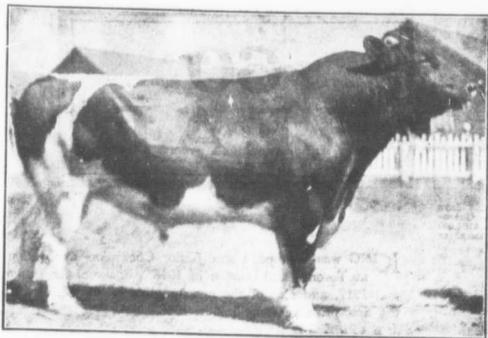
"Premier" Holsteins 40 lb. Blood We have on hand for immediate sale a few very choice bulls, wonderful individuals, good size and well marked, some about ready for service. They are backed by such cows as May Babe Sylvia, 162 lbs. milk in 1 day, 1006 lbs. with 41.01 lbs. butter in 7 days, dam of Caracum Sylvia Johanna, the highest-priced animal in the world—\$106,000. Also with Albina Josie, with 728.5 lbs. milk and 64.14 lbs. butter in 7 days, dam of Albina Josie King, a \$25,000 bull. Also with Lakewood Dutchland Artie, 43.05 lbs. with 65.47 lbs. milk in 7 days. These bulls have their three near dams, averaging up to 58 lbs. in 7 days, with an average for the two nearest of 100 lbs. milk per day. Better write at once. We guarantee to satisfy. Herd tuberculin tested. Correspondence solicited.

Oak Park Stock Farm - PARIS, ONT. H. H. BAILEY, Mgr. The only place that you can purchase the cross of Canada's only two 40-lb. cows.

THE OLD SUMMER HILL FARM The home of the highest priced Canadian bred Oxford ram ever sold in Canada, sold to a Missouri man for \$300. We have for sale 250 Oxford ewes from 1 to 5 years old, 50 selected 7r to 2 yr. rams for show or breeding purposes, 100 rams and 100 ewe lambs of superior quality and a limited supply of ewes fitted for show purposes. Just sold a show flock to H. S. Currie, of Castor, Alta., which won 1st on aged ewe, 1st on yr. ewe, 1st on ewe lamb, Champion ewe and Reserve, 1st on stock competing against two flocks from Ontario. They were bred and raised by this firm. Also we have for sale 40 Shrop. ewes and a stud ram, 1, 2, 3 yr. old, and 40 Shrop. lambs all recorded, Duroc Jersey swine of the best breeding, and recorded, young boars and sows ready to wear at moderate prices. Address all Correspondence to Peter Arkell, Bus. Mgr., Box 454, Teeswater, Ont.

ABOUT OUR HERD

The Haley herd was founded 20 years ago. Its growth has not been a mushroom growth. It has grown in quality as well as in numbers, until for the past ten or twelve years it has been recognized as one of the leading herds on the continent. At the Guelph Winter Fair its representatives have stood at the head of the classes, and on two different years won sweepstakes over all ages with three-year-old heifers, breaking all previous records on these occasions. In record of merit work also, and wherever opportunity has afforded for private, official or public test, the name of HALEY has been prominent. During the coming months Mr Haley is prepared to offer the breeders of Canada the same high class quality of breeding stock as he has offered in the past.



BONERGES HARTOG, Senior Grand Champion at the Canadian Exhibition, 1918

RED RIBBON RECORDS

Some herds attain laurels through official record work, some through the show ring, few make a specialty of both. But if there is one herd which more than any other enjoys both distinctions it is Haley's. Besides their unique success in record work they have an extensive record for many years in the leading show rings.

What other herd has such a record as the following: At Toronto in 1918: senior and grand champion on mature bull; junior champion female; first on dry three-year-old; first on senior and junior heifer calf; first get of one sire; first progeny of one cow. At London the herd was followed with even greater success.

During the past few years this herd won the gold medal at Toronto in 1916, 1915, and 1911, and silver medals on other occasions.

Beauty — Butterfat — Breeding in

HALEY'S

Contribution

IN THE

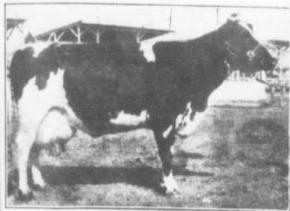
Big Arbogast Sale

TUESDAY DEC. 3

AT THE

Union Stock Yards

West Toronto



LADY FRANCIS SCHULLING
Grand Champion Female at Toronto in 1916.



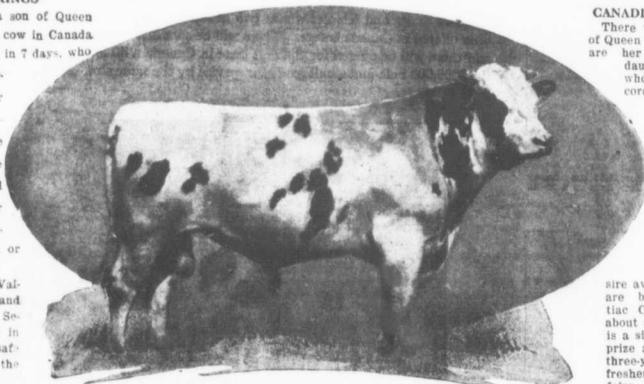
SIR BELLE FAYNE
Grand Champion Male at Toronto and Ottawa, 1915. Bred and Developed at Haley's.

CHOICE OFFERINGS

A 33 lb. bull, who is a son of Queen Butter Baroness, the first cow in Canada, to give over 33 lbs. butter in 7 days, who

was first prize two-year-old at the Guelph Winter Fair, and who has produced 2 daughters who have each in turn headed the list at the same fair, and who together with her dam have all been Canadian champions for milk or butter.

His sire is Finderne Valdesa Ormsky Fayne, a grand son of Valdesa Scott Second, the first 41 lb. cow in the world. This bull is a safety for any one wanting the very best in Holsteins.



MAY SYLVIA PONTIAC CORNUCOPIA

May Sylvia Pontiac Cornucopia, one of the best bred bulls in Canada. He is owned by the Unionville Syndicate, but was held under lease in the Haley herd during the winter of 1918. In type he is an excellent specimen of the breed, and his pedigree is of the very best. His dam is sired by King Pontiac Azra Canada and is the only mature daughter of May Echo Sylvia, the milk and butter-producing queen of the world. All the females in Mr. Haley's consignment in the Arbogast sale are in calf to May Sylvia Pontiac Cornucopia.

CANADIAN CHAMPION FEMALES

There will be two grand daughters of Queen Butter Baroness. Their dam is her two Canadian Champion daughters, Colantha Butter Girl, whose senior two-year-old record for 7 days and whose senior three-year-old record for 30 days is still unbeaten, and Queen B. B. Fayne, her full sister, whose junior two-year-old record of 2,006 lbs. in 30 days has only been beaten by Hot Loo Pieterle, the \$12,750 heifer. These heifers are sired by King Segis Alcatraz Calamity, Arbogast's \$2,000 35-lb. sire, which Mr. Haley considered to be the best sire available at that time. They are bred to May Sylvia Pontiac Cornucopia and will freshen about sale time. The other female is a six-year-old cow who won first prize at Toronto and Ottawa as a three-year-old. On account of freshening year after year at the fairs she has never been tested.

For Particulars About the Haley Herd Write
M. H. HALEY - - - SPRINGFORD, ONTARIO

For Catalogues of the Sale Write
ARBOGAST BROS., SEBRINGVILLE, ONTARIO



Laura Netherland Aaggie, butter 7 days 39.46, milk 7 days 552.8 lbs. Bred in July to Champion Echo Sylvia Pontiac, brother to the \$106,000 bull. Her dam, her daughter, her grand-daughter and grand-son will be included in the sale.



Lady Aaggie Netherland, butter 7 days 27.20 lbs. Is in calf to the 35-lb. Alcartra bull. She has a yearling son and two-year-old daughter in the sale.



King Alcartra Netherland, (ready for service). From a son of Lady Aaggie Netherland. This is a real show bull and sired by the 35-lb. Alcartra sire.



Lvn Pontiac Daisy, butter 27.89 lbs., heavy in calf to the Alcartra bull. Her dam is a 29-lb. daughter of Pontiac Hermes.



Witzzyde Evangeline Dekol, butter in 7 days 31 lbs., milk 605.1 lbs.; best day 98 lbs. She is one of our best cows; weighs 1,500 lbs.; is due to freshen in March and should increase her former record.

All Cows in above column will be in the sale.



King Segis Alcartra Calamity, our \$2,000 35-lb. show bull. Sired by the \$50,000 bull.

King was first prize and Junior Champion at London in 1915, second prize two-year-old at Toronto and London in 1916. Is sire of the Junior Champion male at Sherbrooke 1916 and 1917, and also of the first prize bull calf at Toronto, London and Guelph in 1917, and the first prize yearling bull in 1918.

Included in the sale will be 22 of his daughters and ten of his sons. Three are from 30 lb. cows and three are granddaughters of 30 lb. cows. King is only a four-year-old, but his first five daughters made an average butter record in seven days of 19.09 lbs. His first and oldest daughter to freshen made 20.8 lbs. in seven days. His second 20 lb. daughter at 23 months made 20.41 lbs.; this record being made last August when the temperature was over 100 degrees in the shade.

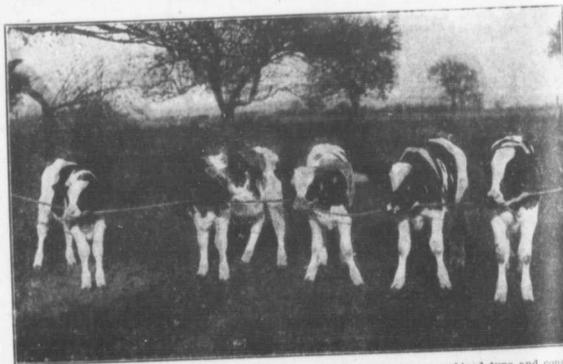
Five of his daughters averaged 60 lbs. in one day; three averaged over 400 lbs. in seven days as two-year-olds. They are by far the best heifers that ever freshened at Villa View. It matters not where they are owned, or what class of cows their dams may be, they all make good.

The Arbogast Dispersion

Tuesday, Dec. 3, 1918

For catalogues, write to Arbogast Brothers, Scarborough, Ontario, and don't forget to bring them with you when you come to the sale.

In this sale there will be more of the offspring of a 35 lb. sire, more cows bred to a 35 lb. sire, more males and females whose two nearest dams average over 30 lbs. in 7 days than has ever been offered in Canada before. There will be sons and daughters of former Canadian Champions and there will be offered for the first time in Canada a 30 lb. cow carrying a calf to a brother of the \$106,000 bull, and a bull ready for service by the same sire. In all 12 bulls will be sold. They are the best lot of bulls ever offered for sale in Canada.



Sons and daughters of King Segis Alcartra Calamity. They have combined type and constitution and are making good.

FAIRMOR of King Segis of the best, John Armitage At 5 years \$84.10 lbs.; \$497.40 lbs.; \$0.32 lbs.; 24-lb. two-days; and 1

mitted to let Rag App breeding, and The females the sires who endeavor to Remem Avondale h make will b various bre

This will be at the

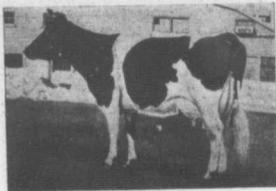
W TUE

MR. HALL sale, and in the sales have

In the Canadian Two of the granddaughters first 31,000

All the Pontiac C It is public as a opportunity

Da dand daughter



FAIRMONT PONTIAC CALAMITY, the dam of King Segis Alcarra Calamity. She is one of the best, if not the best cow ever owned by John Artman. She has the following records: At 5 years, butter in 7 days, 35.37 lbs.; milk, 584.16 lbs.; butter in 30 days, 147.67 lbs.; milk, 2497.40 lbs. At three years: butter in 7 days, 36.52 lbs.; milk, 596.89 lbs. She is a dam of a 24-lb. two-year-old with 862 lbs. milk in 30 days, and 92.71 lbs. butter in 30 days.

The Avondale Contribution will consist of eight head, one young male, a son of Champion Echo Sylvia Pontiac, and seven females, one of the best lots that Mr. Hardy has ever permitted to leave his herd. The dam of the young bull offered is a 24 lb. three-year-old daughter of Rag Apple Korndyke 8th. This is the only bull in the world with this particular cross of breeding, and it is up to the Canadian breeders to show their appreciation of it on this occasion. The females will be daughters of King Pontiac Artis Canada and Woodcrest Sir Clyde, two of the sires who have added greatly to the fame of Avondale Holsteins. Canadian breeders should endeavor to secure as much of this line of breeding as possible.

Remember that closely related stock to all that is offered is still in and will remain in the Avondale herd. These will be developed to their fullest capacity and the records which they make will benefit not only the Avondale herd but all stock of similar breeding in the hands of various breeders throughout the country.

This Sale will be held **Union Stock Yards** at the **WEST TORONTO** **TUESDAY, DEC. 3, at 12.30 Sharp**

MR. HALEY'S contribution also is in keeping with the general quality of the other animals in the sale. Mr. Haley is one of the breeders whose consistently good work both in the show ring and in the making of records has placed him in a position where his consignments to the various sales have always merited first attention and highest prices.

In this sale he will contribute a son of his noted Queen Butter Baroness, the 33 lb. former Canadian champion. He is sired by a grandson of the first 41 lb. cow, Valdessa Scotch 2nd. Two of the females will be from the Arbogast Senior sire, King Segis Alcarra Calamity and are granddaughters of Queen Butter Baroness. He will also contribute a six-year-old sister of the first 31,000 lb. cow.

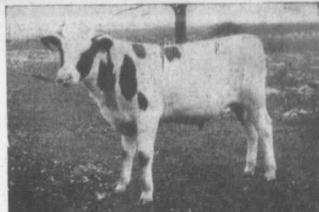
All the females which are offering will be in calf to the Unionville Syndicate Bull, May Sylvia Pontiac Cornucopia, a grandson of May Echo Sylvia.

It is doubtful whether ever before Mr. Haley has laid himself open to the mercy of the public as he is doing in this sale. His offerings represent the very cream of his herd, and it is an opportunity that should not be overlooked on the part of his fellow breeders.

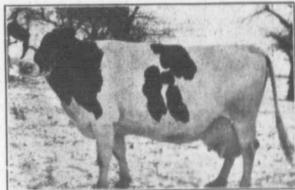


Dam and sire's dam of Dutchland Pontiac Colantha. Both are 30-lb. daughters of Colantha Johanna Lad and are two of his best individual daughters, each making world's yearly records.

60 HEAD



DUTCHLAND PONTIAC COLANTHA, Junior herd sire at Villa View. His entire are the finest we have ever had at Villa View, and 80 per cent of them are heifers. In the sale are ten Alcarra heifers and a 30-lb. cow, bred to this sire. His dam and sire's dam are each 30-lb. daughters of Colantha Johanna Lad.



OLIVIA SCHULLING DEKOL, 8 years old, due about sale time. Butter in 7 days, 26.85; milk, 657 lbs. This cow has a beautiful Alcarra heifer in the sale.



ISABELLA PONTIAC LYN—Butter in 7 days, 29.23 lbs.; a daughter of Pontiac Harrow. Her 27-lb. daughter will be in the sale, also a grandson from the same daughter.

Above three cows will be in the sale.



DAISY ORMSBY LASS, mature record, butter in 7 days, 31.47 lbs.; milk, 581 lbs. Three-year-old record, 24.64 lbs. butter in 7 days. Two-year-old record, 17.59 lbs. butter. She is heavy in calf to the Dutchland bull. In the sale will be a yearling daughter and granddaughter of the cow, both by the Alcarra bull.



QUEEN BUTTER BARONESS, the first cow in Canada to make 33.37 lbs. butter in 7 days. She is the dam of Colantha Butter Girl, 30.87 lbs. butter and 125.23 lbs. butter in 30 days—Canadian record when made. Also dam of Queen B. H. Payne, 22.71 lbs. butter and 485 lbs. milk in 7 days at two-year-old; 35.35 lbs. butter and 2006 lbs. milk in 30 days—Canadian record when made. There will be a son of Queen Butter Baroness in the sale.

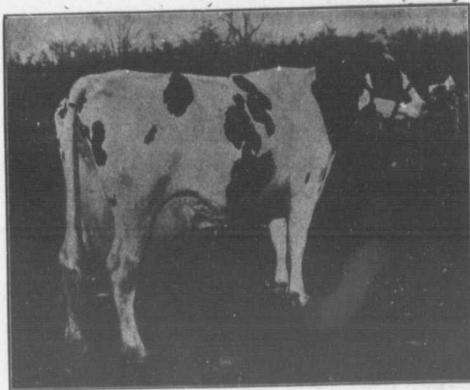
Everything will be sold without reserve, and every animal is guaranteed free from contagious diseases.

AUCTIONEERS:
Cols. KELLY and HAEGER

CLERK:
THOS. H. SMITH

Railway Connections.
All Lines Lead to Toronto. Incoming Trains in Forenoon and Outgoing in the Evening.

AVONDALE FARM AT THE ARBOGAST SALE



MAY ECHO SYLVIA, the queen of them all, 41 lbs. butter in 7 days, 323 lbs. in 60 days, 152 lbs. milk in 1 day, 1,005 lbs. in 7 days, 12,898 in 100 days.

UNION STOCK YARDS
WEST TORONTO
TUESDAY, DEC. 3rd, 1918

The Avondale Consignment

in this Great Sale, will consist of

EIGHT (8) HEAD
of Royally Bred Holsteins

They will have **30 to 40 lb. Records on Both Sides**

The Consignment Includes: A Grand Yearling Bull

Sired by Champion Echo Sylvia Pontiac, the only son of May Echo Sylvia sired by a 41 lb. bull. His dam is a daughter of the famous Rag Apple Korndyke 8th, and he is the only combination in the world of the blood of these two great animals.

He is an almost perfect individual. His paternal grand dam has a son which sold for \$108,000 and his maternal grand sire, a son that sold for \$53,000, (the two highest prices ever paid for individual animals.)

A 20-lb. three-year-old daughter of a 20-lb. cow, whose dam has 31 lbs.

A 2-year-old (now in test), also her full sister, whose dam has a 22 lb. 2-year-old record and is sired by a 38 lb. grand son of both Pontiac Korndyke and Colantha Johanna Lad. (Above 3 heifers are sired by Woodcrest Sir Clyde).

A daughter of a 23 lb. cow, due January 1st to Woodcrest Sir Clyde and sired by King Pontiac Artis Canada.

A four-year-old daughter of a 32.71 lb. cow. She has a two-year-old record of 19.65, is also a daughter of King Pontiac Artis Canada and will be bred to the "Champion" bull.

Both these latter two are from daughter of Prince Hengerveld Pettje, who out of a total of 27 tested daughters has ten with over 30 lbs.

Woodcrest Sir Clyde has 15 tested daughters, one with 25 lbs. as a junior 2-year-old.

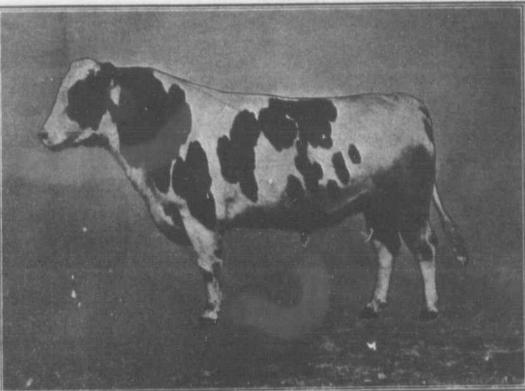
King Pontiac Artis Canada has 55 tested daughters, 24 having two-year-old records from 19 to 25 lbs. His daughters have topped every sale where they have been led into the ring, one bringing as high as \$4,400.

Nearly all the above females are bred to Champions.

A great opportunity to
get the most popular
blood in America.

Avondale Farm

Sale: - Dec. 3rd at Union
Stock Yards, W. Toronto



WOODCREST SIR CLYDE—Sire of most of the Avondale consignment.