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Peterboro May 18, 1916

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Plain Words For Ontario Dairymen

A Western Dairy Authority Submits the Dairy Industry of Ontario to Some Criticism

ONTARIO dairymen need no longer or long for some power "to see ourselves as others see us." In his address before the convention of Saskatchewan dairymen held at Saskatoon some time ago, the assistant Dairy Commissioner for that province, F. N. Logan, B.S.A., expressed himself very clearly as to the view of the dairy situation in Ontario. His remarks are particularly interesting in view of the fact that since they were made some of the measures that he advocated have been enacted by the Ontario Legislature. In part he said:

"If there is any industry in this country which should be under government control, it is the dairy industry. The quality of the finished product depends so much upon the raw material, and without the aid of some system which will tend towards the improvement of the raw material, there is little hope that the industry will reach the perfection that it should. Educate the farmers to better methods in regard to the care of their milk and cream, you say, Education has not done this. It has failed to bring about the desired result. Take Ontario, as an example. For the past 30 years the Ontario Government and Dairy Associations have kept up a bombardment on "The Care of Milk and Cream"; "The Washing of Dairy Utensils"; "The Effect of Feed on the Quality of the Milk," and kindred topics, sufficient to make every farmer in Ontario a scientific and sanitary patron. Yet after all these years one of the most reliable experts of the Province, at the Dairymen's Convention last January, stated, that as regards the quality of Ontario butter and cheese they were making little or no progress. He further added that the foreign market for Ontario butter was all, that at one time they had a good market in British Columbia, but when brought into competition with butter from the Prairie Provinces, they were obliged to take a second place and an inferior price.

Real Remedies Avoided.

This, to say the least, is a humiliating and serious confession, and an admission that they have not followed the right system in developing the dairy industry. They hold their annual conventions and discuss the same old subjects, such as "How to Build up the Dairy Herd," "How to Feed the Cows," etc. They merely touch upon the vital questions such as grading the cream, grading the butter, and a cooperative marketing system. They refer to the progress that has been made in Alberta and Saskatchewan, when since the adoption of these methods, but apparently look upon the task of reforming the milk and cream producers of Ontario as hopeless. Why private and cooperative creameries and cheese factories located at from two to ten miles apart, the competition for milk and cream is keen, and one operator will not start grading for fear some of his patrons will take their cream to some other creamery, and so the old method is continued. There are some excellent dairymen throughout Ontario and Quebec, but they get no more than a pound of butterfat for their cream than the most careless patron in the neighborhood, so the tendency is for the good dairymen to become careless, rather than for the careless to become more particular. It is, therefore, not surprising to read the statement of an old butter dealer to the effect that 20 years ago Ontario and Quebec butter was of good quality,

but that it had greatly deteriorated since that time.

Cheese Quality, Too, Lags.

As regards cheese making, little or no improvement is being made in its quality. As high a price is paid for poor milk as for good, so it is only natural that the quality of the milk does not improve. The sad condition of the meat trade that there is only one effective way of bringing the quality of their cheese and butter to the standard already reached by some of the Western Provinces, and that is to grade the milk and cream when it arrives at the factory. They also realize that their present system of marketing is unfair, unsatisfactory, and does not tend towards establishing standard grades or reliable markets, but owing to unwarranted competition they do not seem able to agree on any system more efficient or satisfactory than the one in vogue.

It is usually easy to point out defects, but not so easy to suggest remedies. I think anyone will agree, however, that some of the old methods must be changed if the dairy products of Eastern Canada ever achieve any reputation worthy of mention in the markets of the world. One of the first reforms would be cooperative marketing under Government supervision, accompanied with the grading of all butter and cheese and the payment for same, according to its quality, instead of by the expensive "bit and mile" system of auction sales, consignment, or private arrangement. This step would doubtless lead to the grading of cream and milk, for many of the dairymen seem to learn that to obtain the highest prices, they must obtain better raw material, and this will only come when it is paid for according to its quality.

PAID BY TEST FOR 12 YEARS.

EDITOR Farm and Dairy.—Regarding the Dairy Standards Act, by which milk testing at cheese factories is made compulsory after April 1st, 1917 I would say that doubtless this should have been done years ago. In the year 1896, I paid for milk on a quality basis in 21 factories, and continued to pay for milk on that basis for about 12 years without any help from any source. This milk testing cost me thousands of dollars. I must have been ahead of my time for I paid very dearly for my experience.

The legislation is all right, but the practical working out of the law will be another matter. The A. A. should take the matter in hand and appoint men who are thoroughly competent to do the work. The cheese inspectors should be able to do the testing if they could pass the necessary examination for a certificate to do the work.—Wm. Eger, Dundas Co., Ont.

LENGTH OF NOTICE.—If a person rents a house by the year, but pays rent by the month, how long should they be given to give of their intention to give up the house?—F. D. Peterson Co., Ont.

When a house is rented by the year, the tenancy expires at the end of the year, when the tenant will either leave or make a new agreement with his landlord. If the tenant stays on without making any further arrangements, rather than for the landlord, he becomes a yearly tenant and will be obliged to give six months' notice to quit. When a house has been rented for a year, the tenant is, of course, obliged to keep the house for the year.



We Want Trade Incre

VOL. XX

A V



A. C. Hallin

In Canada, the Holstein Association has done much for the breed. The most interesting Holstein breed is the Hallman county. His grade that section, a weaver by his own occupation, earner, he travelled to Carleton does not undertake by land or promise made. He has not, in Water





FARM AND DAIRY



We Welcome Practical Progressive Ideas

& RURAL HOME

The Recognized Exponent of Dairying in Canada

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. XXXV.

PETERBORO, ONT., MAY 18, 1916

No. 19

A Veteran Among Canadian Holstein Breeders

A Recognition of the Services of Mr. A. C. Hallman to Canadian Dairying—By F. E. Ellis, B.S.A.



A. C. Hallman.

THIS sketch is in recognition of the services of Mr. A. C. Hallman to the pure-bred dairy cattle industry of Canada. Recognition of a man's services after he is dead is at best but tardy justice. The subject of this sketch is not dead; far from it. A man a little past his prime, and as fresh and vigorous in mind and outlook as ever and as anxiously looking for new fields to conquer, Mr. Hallman is, nevertheless, one of the veterans among Holstein breeders

in Canada. He is one of the fathers of the Holstein Association, and in the past several decades he has done much to popularize the breed in this country. The story of his early life is therefore an interesting chapter in the development of the Holstein breed.

The Hallman family is an old one in Waterloo county. His grandfather, the first of the name in that section, came from Pennsylvania. He was a weaver by trade, but seeing no future in his own occupation, except that of a poorly paid wage earner, he picked up his few belongings and walked to Canada. It has been well said that fools don't emigrate, and the arduous journey undertaken by the elder Hallman to reach his land of promise showed the stuff of which he was made. He finally settled in the township of Wilmet, in Waterloo county, near New Dundee. He

cleared a farm from the virgin forest, and the work that he left undone was completed by his son, the father of the subject of this sketch. Both the Pennsylvania weaver and his son were thrifty and progressive people, who, seeing into the future, were content to make good use of the present.

It was on the farm that these two men cleared from the virgin forest that A. C. Hallman was born and reared, one of a round dozen of sturdy country children. All but one of this large family are living. All are farmers or farmers' wives, and all are doing well. Young A. C. Hallman soon showed his natural bent. "It was the cattle boy at home," he told me once. "I never cared for teaming. I used to be in the barns sickening up the cattle just for the love of it."

Finally the time came when the cattle boy desired to become a cattle man and make a start for himself. He settled two miles from the old homestead on a farm that his father had bought as bush land and off of which he had sold a part of the timber. The small area of crops that had been produced there had always been drawn to the home farm. Finally the partly cleared farm was

offered for sale at \$5,000, but could not be sold. Then young Hallman made his first bold bid for a home of his own. "I will take that farm at your price," he told his dad.

It was a rough, hilly farm to which the young



The Substantial Farm Home of A. C. Hallman, Waterloo Co., Ont. Surrounded by trees of Mr. Hallman's own planting, this is one of the finest farm homes in Ontario. Photo by an editor of Farm and Dairy.

man moved and not one well calculated to engender optimism. Forty acres of stony land had been cleared. The first season's grain crop weighed out just 665 bushels. The house to which Mr. Hallman took his bride was built of logs, which at least had the merit of being substantial, and there they lived and worked for 15 years. Improvements were made from time to time: an addition to the barn, a modern hog pen, a good drive home, and so forth. When the farm was finally sold Mr. Hallman realized \$500 more than he paid for it, and when he left the farm produced 2,000 to 2,500 bushels of grain, fed 30 to 35 head of cattle, and at times over 100 hogs. Of course, for the latter, much feed was purchased. The purchase of this farm Mr. Hallman still regards as one of the greatest mistakes of his life.

"When the neighbors were riding the binder and mower I was grubbing around stumps with a scythe," he told me in a chat we had last spring. "If I only could have devoted that time to something more useful! My gracious, the stones I picked on that place! I worked terribly to make that farm go, worked till all hours of the night, and could I have put all that energy into cattle I would be much farther ahead to-day."

The Start With Holsteins.

In the meantime, however, a start had been



A String of Holstein Youngsters on the Farm of A. C. Hallman.

Photo by an editor of Farm and Dairy.

made in the cattle business which was destined to bring Mr. Hallman both fame and prosperity. His father had good Durham cattle, but he soon found as he attempted to improve them with Shorthorn blood that he got less and less milk from his cows. This was a serious matter, as a cooperative cheese factory now offered a fairly good market for the milk. Among the friends of the family was a Swiss gentleman, who talked much of the great cattle he had seen and known. Illustrations of Holsteins had attracted the elder Hallman, and in 1883 he decided to buy some Holstein cattle. Accordingly, three pure bred females and two bulls were purchased from Geo. E. Brown & Company, Aurora, Ill. Thus was the herd started that has yielded a great influence in the development of the black and white breed in Canada.

At the time they made their first importation, Mr. Hallman and his father did not know that there were any Holsteins in Canada. Later they heard that a few had been passed through the three months' quarantine by M. Cook & Sons, of Autawille, Ont. This long quarantine made importation difficult and expensive. In 1885, Mr. Brown imported Holsteins direct from Holland, bringing them through Canada. He fed at Toronto. The two Hallmans, father and son, and a Mr. Hergartner, went to Toronto to see them. The subject of our sketch had pluck enough to select six heifers, three calves and three yearlings, and one bull. These cost \$100 each for the calves eight months old and \$360 for the heifers coming two. Of this lot, Mr. Hallman took three for himself and borrowed the money to pay for them. The rest of the story is best told in Mr. Hallman's own words.

The First Disappointment.

"The first heifer to freshen was words. 'She was a beauty,' said he. 'She was as nice a type of Holstein as I have ever seen.' She was a dual purpose type, splendid for milk and good for beef. She died with her first calf. That was my first setback with the breed. I had paid \$360 for her and kept her from fall to spring, and it was borrowed money at that. I decided, however, that the only way to recover my loss was to keep right on and get it where I had lost it.

"I proposed to Mr. Hergartner that we go into partnership. I calculated that in this way we would share the losses, as naturally losses were foremost in my mind at that time. I forgot that such a partnership also involved, necessarily, sharing the profits. In addition to ourselves, my father had some Holsteins, and also another neighbor, Mr. Wagner. I was expected to do all of the selling and correspondence. We made additional importations from Smith, Howell & Lamb, of Syracuse, N.Y. Finally, Mr. Hergartner and I had 60 head of pure bred cattle. We had more cattle than there was a demand for. Had I been doing my own business I could have sold all and done much better. As it was, we called a dissolution sale, at which good cattle sold as low as \$60 and \$50, and I then started out for myself 'as the Holstein business. That sale was held just 10 years after I started on my farm."

Success in the Show Ring.

Even before this sale was held Mr. Hallman had started his career in the show ring. In 1885 he took part in a dozen head and went to the Provincial Exhibition in London. He went with much fear and trembling, for, as he explained to me not long ago, he was "just a green farm lad."

(Continued on page 11.)

Cow Testing and Herd Improvement

A Practical Farmer Relates How Cow Testing Enabled Him To Almost Double the Production of His Cows in Three Years.—By E. B. Beach, Grenville Co., Ont.

I WILL try to relate a little of my experience in herd improvement. In the early spring of 1913, Mr. Freeman Brown, Dairy Recorder for this county, wanted me to take up cow testing work. I decided to keep herd records and find out what they would do. I became quite interested in the work. I found that it paid to know what the individual cow would do, the quality of milk she gave as well as the quantity. This could not be done without keeping a record of her work, so for the first year I weighed the milk three times a month and took samples for testing. But I wasn't satisfied with weighing three times a month, so for 1914 and 1915 I weighed twice daily. For 1913 the result was as follows:

	lbs. of milk.	lbs. of fat.
Average for 3 cows	5,145	172.9
Best cow, aged 4 yrs.	5,923	199.3
Poorest cow, aged 4 yrs.	3,371	114.4

	lbs. of milk.	lbs. of fat.
Average	5,461	186.3
Best cow	6,450	199.4
Poorest cow	3,138	111.6

feeds were corn stalks, hay and straw. Milk feeds were bran, shorts, cornmeal and oat chop.

Cleaning Up the Small Jobs

Jos. Irwin, Dufferin Co., Ont.

WE have never had much trouble in getting the seeding done on schedule time. During seed time everything goes like clock work. The team is in the field sharply at seven o'clock, one item of work follows logically after another, and everything and everybody is speeded up, with the result that the spring seeding finishes sharply on time, with scarcely a hitch, except when wet weather interferes.

Previous to last year, however, we always had difficulty just after seeding. Just as soon as the seed was in the ground things seemed to come to a standstill. We tore around and worked as hard as during seeding, but seemed to get nothing accomplished. Every job stuck to our hands, and we could not seem to get rid of it. There were so many little things to do besides getting the root and corn land ready that it seemed impossible to make any progress. Just as we got started at cleaning out the manure that had accumulated since spring opened up, we would find a piece of fence that had to be attended to immediately. When we ought to be planting the garden a trip to town would demand our time. All during the spring rush the little jobs had been accumulating, but now they must be attended to, with the result that no end of time was lost in running from one thing to another. In seeding time it usually surprised us at the end of each week to find how much we had done. As soon as seeding was over, however, the surprise on each Saturday night was to find how little had been accomplished during the week.

Last spring we adopted the new plan with good results. By it we

just about doubled the number of small jobs we could get through within a week. We began by making a list of all the jobs we could think of that had to be done within the next week or so. Each night this list was revised. The things that had been done were struck off, and new jobs put on as they appeared. The things that needed attention most were picked out so that they could be attended to the following day. Each day's work was therefore carefully planned, and we took great pride in being able to say at night that everything had been accomplished that day according to schedule.

As a result of this plan, we did in two weeks what formerly took us three or more weeks to do. We therefore got our roots and corn planted that much earlier and all the small jobs out of the way, so that we had a good long summer season left open for carrying on our general plan of farm improvement which we have under way, and which has occupied our spare time in summer during the past few years.

We have reached the point where we can scarcely advise a man to plant apple trees. For years and years we have been boosting and boosting the apple business. Our problem now is not planting, but shipping the fruit we have.—Prof. J. W. Brown, O.A.C., Guelph.

DOMINION HOLSTEIN BREEDERS' ASSOCIATION.

Parkhill, March 20th, 1916.

Dear Sir,

A Special Meeting of the D. H. D. will take place at the Victoria Hotel, Guelph, on March 21st at 12.30 o'clock p.m. The committee appointed at Stratford, after fully investigating, do not consider it to be the best interest of the Breeders to establish a H.B. in connection with the Agricultural and Arts Association, but are favorable for the Association to form their own herd book, which can be done cheaper and more satisfactory. Mr. D. E. Smith will accept the Secretaryship and push the work.

P.S.—Those not able to be present will please communicate their views to the Secretary prior to the meeting.

By order of President,

Al Hallman
President

P. STEWART, Secretary.

Twenty-five years ago last March the above notice was sent out to members of the Dominion Holstein Breeders. Mr. Hallman was then President. The Holstein has made a lot of dairy history in Canada since this notice was first sent out.

In 1914 the average value of milk was \$60.63; feed cost, \$28, and the average profit, \$32.63.

After two years' experience in the work and finding even cows the same age giving from 2,000 lbs. to 2,200 lbs. more of milk, and also from looking after the feed, finding some cows responding to the same feed more than others (for in 1914 and 1915 I kept feed records as well), I found one boarder, and so decided to keep the six best cows and feed more liberally. The result for 1915 was as follows:

	lbs. of milk.	lbs. of fat.
Average	9,456	341.2
Best cow	10,287	445.4
Poorest cow	3,194	211.8

The value of milk at \$1.80 a cwt. was \$132.93, feed cost \$72.15, and the profit \$60.78. The increase in production and profits was due to weeding out and more care and better feeding, and while I think it pays to keep a good sire at the head of the herd, yet my work in 1915 was with the same cows as in 1914, less one. I will be able to say more about breed in a couple of years from now if I stay in the work. While the cost of producing 100 lbs. of milk may have been a little high, I did it without snailage, turnips or mangels. My summer feed was green peas, oats and clover sown at different intervals. Winter

DUST is a disagreeable one lives in the roads around road drug is of using it is comes from in its we e for in the middle and in wet weather will not be m implement fo log drag. It every rain.

roaded in the centre it will moisture under growing along it, and thus soil grains rot not be allowed travelled part Clay or loam the right amount becomes soft, do not stick fall amount of it at least 10' keep it packed middle and to weeds. When he ground to in. Use the r

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Dust Prevention

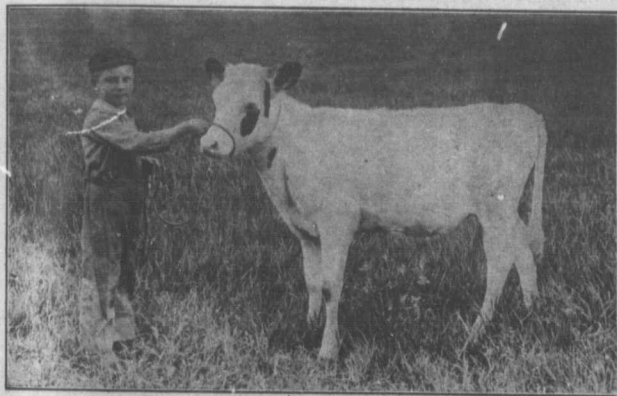
By W. C. Palmer.

DUST is one of the nuisances of a road. It is disagreeable both to the traveller and to the one living near the road. In many places the roads are oiled but this is expensive. The road drag is a good dust prevention, and the cost of using it is small. Much of the dust in a road comes from the wearing down of ruts, and the ruts were formed in the road before water stood in it. The roadbed that is well crowned in the middle and packed hard will not loosen up much in wet weather, and if no ruts are formed there will not be much material to form dust. The best implement for crowning the roadbed is the split log drag. It should be run over the road after every rain. In this way the soil is laid on the roadbed in thin layers and is packed on.

When the roadbed is hard and crowned in the centre it will hold just about the right amount of moisture unless it is sandy. Grass and weeds growing along the roadbed send their roots under it, and thus remove the moisture that holds the soil grains together. The weeds and grass should not be allowed to get within several feet of the travelled part of the road.

Clay or loam will pack hard when it contains the right amount of moisture, when too wet it becomes soft, and when too dry the soil grains do not stick together. The best way to keep a fair amount of moisture in the roadbed is to keep it at least 18 inches above standing water, to keep it packed hard and well crowned in the middle and to keep a strip on each side free from weeds. When ruts are allowed to form they will be ground to dust as soon as drying weather sets in. Use the road drag to keep ruts from forming.

Better farming simply means the application of modern science to the practice of agriculture, better business is the no less necessary application of modern commercial methods to the business side of the farming industry. Better living is the building up in rural communities of a domestic and social life which will withstand the growing attraction of the modern city. This three-fold scheme of reform covers the whole ground, and will become the basis of the country life movement. But in the working out of the general scheme there must be one important change in the order of procedure—better business must come first.—Plunkett.



The Pride of Ownership Attaches the Boy to the Farm.

"We consider these the best investment on our farm," writes the subscriber who sent us the photo. It was taken on the farm of W. E. Dryden, Quebec.

Hogs a Profitable Sideline to Dairying

Feeding and Housing Methods Advocated by Mr. W. C. Shearer, Oxford Co., Ont.

DIVERSIFICATION is the rule at Spruce Lodge Farm. Nominally, this farm, like the majority of farms in Oxford county, is a dairy farm. Really the income is derived from many sources, and the pigs are only secondary

in importance to the dairy herd. The proprietor, W. C. Shearer, has acquired a reputation as a hog feeder through his advocacy of the two feeds a day system for market hogs. To a Farm and Dairy representative last spring Mr. Shearer spoke quite fully of his methods, which have caused much comment at Institute meetings where he has so often spoken on this subject. He described his feeding methods as follows:

"Our staple grain feeds are oil cake, middlings and buckwheat meal.

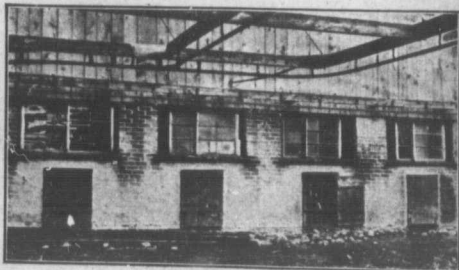
We have to be very careful in feeding the latter. We feed middlings and buckwheat meal, half and half, and add a little oil cake. Mangels rank of almost equal importance with the grain, and it is here that my methods differ from the common way of feeding hogs for market. I put so much dependence on roots that they constitute the whole of the noon feed, grain being fed but twice a day. I find that I can grow young pigs with a lot of roots and a little meal, but of course I cannot fatten them on this ration.

The Method Spreading.

"I have advocated my method of leaving out the grain feed at noon at many an Institute meeting, and I know that the method has been adopted with satisfaction by at least a few of my hearers. I received a letter from an attendant at one meeting who told me that he had been feeding grain three times a day. After attending the Institute, he started to feed dry grain twice a day, and in 90 days the hogs gained 140 lbs. each. 'I was

never able to do it on three feeds,' he wrote.

"On another occasion I spoke on the same subject at the Farmers' Institute at Innepink. Some time after the foreman of one of the big farms near there stopped me on the road. 'Your two



Mr. Shearer Believes in Having the Hog Pen Well Lighted. Note the Numerous Windows.

—Photo by an editor of Farm and Dairy.

feeds a day are O. K.," he remarked. "I went home from the Institute, selected two lots of pigs of about equal merit, and fed one lot twice a day and the other three times. I sold the two-feed lot three weeks ahead of the three-feed lot, so much faster did they develop."

"Hereafter I am going to run my pigs on clover in the summer. I have 40 rods of hog fence. This will be tacked on short stakes to confine them. Through this system of pasturing the hogs I expect to raise them up to the finishing stage on one-half the usual grain allowance. Grain is too high to feed to hogs at present war prices."

In the Hog House.

Mr. Shearer's hog house has some features which may be new to some of our folks. The walls are a combination of brick and stone, with storage space for hay and straw above. In it there are five pens, 8 x 16 feet, with a feeding alley along the north side. The floors are of cement and the feeding troughs are cement. So far it is just an ordinary hog house. The two unusual features are the dryness and the lighting of this particular house. The front 11 feet of each pen has a four inch slope to a gutter at the back, which is four inches deep and three feet wide. "When I built this hog pen," said Mr. Shearer, "I went around to neighboring farms to get pointers, and as a general rule I found that the hogs were wet. That four inch slope, but more important still, that wide gutter, keep my hog pen perfectly dry."

Over two-thirds of the south wall is in window glass; big windows, which flood every corner of the pens with sunlight and also add considerably to the warmth in winter. "I have seen it below zero outside and as warm as a kitchen inside," remarked the owner. "I think it is a great thing to have the hog house facing south and with big windows. We whitewash every fall, which tends to make the house still lighter."

In the farrowing pen there is a plank all around the outside about 12 inches wide and set up high enough from the floor to allow space for the young pigs to run under. Here the youngsters can take refuge and the sow cannot tramp or lay on them.

This short sketch is not intended to be a full dissertation on Mr. Shearer's methods with hogs. We have merely made mention of a couple of features that proved interesting to us.—F. E. E.

He's had GARDINER'S CALF MEAL

ever since he was weaned.

"I've never seen anything like it to take the place of your milk and keep calves going right ahead. I feed it first with separated milk, then with milk and water, and finally with water only as the calves grow older. I find it pays for itself several times over in better condition and faster growth. Gardiner's Calf Meal is guaranteed to contain 1% to 2% Protein and 8% to 9% Fat. This exceptional food value and its easy digestibility explains its success with young colts, lambs and pigs as well as with calves.

Buy it in 25, 50 or 100 lb. Bags. If your dealer hasn't it, write us for prices on it and also on Gardiner's Broccoli, Pig Meal, Oatmeal and Ontario Farmers' Custom Seed Meal.

GARDINER BROS., Feed Specialists, SARNIA, Ont.



CANADA'S GREATEST SEED HOUSE

STEELE-BRIGGS SEEDS

THE BEST BY EVERY TEST

FOR SALE BY RELIABLE MERCHANTS
EVERYWHERE THROUGHOUT CANADA

SYDNEY BASIC — SLAG —

The Best Value in Fertilizer on the Market

SALES in Ontario in 1913 230 tons.
" " " 1916 3,108 "

We suppose you have missed our advertisements recently. Well, we have not retired from business, but the fact is, we had more orders than we could execute, and we had to lie low for a bit. We are now, however, booking orders for the Fall Wheat trade, and we want you to make a start in using Sydney Basic Slag this season. We know you have been thinking of doing so, but now is the time to place your orders. Write us, and we will give you the name of our agent in your district, or if we do not happen to have a man representing us, perhaps you could take a carload of 20 tons and distribute same among your neighbors. You will be reasonably remunerated for your trouble, but, above all, you will earn their gratitude for introducing Sydney Basic Slag into your district. Drop us a line and our general Salesman will give you a call and discuss the matter. If necessary, also, he will help you to canvass your territory. Sydney Basic Slag was first sold in Ontario in 1913. That year we placed 230 tons. This season we have sold 3,108 tons. Think that over for yourself.

Interesting descriptive literature will be sent on application.

The Cross Fertilizer Co., Ltd., Sydney, N.S.

Some Hints on Lightning Rod Installation

And Other Things Learned During a Visit to the Farming Specialist—
"Halton Farmer," Halton Co., Ont.

GRABAT was the Farming Specialist. A veritable college on wheels! I have attended several farming special schools as the one model at the Ontario run last fall over the lines of the C.P.R. in Western Ontario, and was interested only in a general sort of way. I returned looking at this and that and going away without knowing much more than when I came. I suppose many others have had similar experiences. When the Farming Specialist of last November, however, stopped at Cuelph the same day that I was in the city attending the tractor demonstration, I stepped over to the cars to get some definite information. I wanted to know all about lightning rods. I had repaired the buildings on the farm and wanted to protect them with some better insurance against fire than a good insurance policy, although I have the insurance policy as well. I got just the information I wanted. Mr. L. B. Martin gave me full and complete instructions for making my installation. I will not tell here all that I learned from Mr. Martin, as much of it dealt with my own peculiar problem, but I believe I may be doing many others a favor in passing on some things I learned that apply generally.

We first discussed the type of lightning rod that it would be most advisable to install. I asked about the iron centre rod. For answer Mr. Martin showed me some specimens he had in his exhibit. On one side was a new iron centred rod in its copper sheath. Right near it was a section of an iron centred rod that had been used in rodding a building eight years ago. The iron had all rusted out, although the copper was as good as ever. "I certainly would not advise the iron centred rod under any conditions," Mr. Martin informed me. "In fact, the pure iron rod does not rust as fast as the iron-copper rod. The conducting power of the iron is only one-half as great as that of the copper rod, but its melting power is higher. The only place where there is much danger of melting, however, is at the point. Hence we get the ideal rod in a combination of a steel tip and a copper conducting strand."

Lightning Rod Fasteners. We then discussed methods of fastening the rods to buildings, and Mr. Martin had specimen connections right on hand. I learned that there are two general types. Some hold the rod close to the building. The claim on behalf of this method is that the copper, coming in contact with the building, will remove the charge from the building with any danger that might involve. A disadvantage, however, is that straw and chaff collect around the rod and are held there. Other rod fasteners, and these are considered the most satisfactory, insulate the rod from the building by holding it three-quarters of an inch away.

I made bold to ask a question. "Is there anything in the claim that a metal roof is protection against lightning?" "A metal roof does not protect in any degree against lightning," Mr. Martin assured me. "Unless it is furnished with points to draw the charge and is properly grounded at all four corners. The metal roof itself has no virtue. On a metal barn I would have the proper points at the ridge and welded into the metal of the roof. At each of four corners I would connect a copper rod and run it down deep enough into the ground to be in contact with permanent moisture. If there are cupolas on the roof,

the point must be on top of the cupola."

Another point I learned from a model of a properly rodded barn that Mr. Martin had in his exhibit, was that all metal construction, such as the hay fork and the "titer" carrier track, should be connected with the grounded rods, which, to reach moisture, will necessitate burying them eight to 10 feet deep.

In rodding houses I was advised that the rod travelling along the ridge board should be carried around the chimneys and not over them, and then grounded at eave corners diagonally opposite. A general rule that Mr. Martin gave me was that the points on the roof which carry the charge should be four times as far apart as the points are long. Much more I learned in connection with lightning rods, but I will not carry this subject any further.

Value of Tile Drainage.

From placards on the car walls I noted the following testimonials to the value of the drainage:

Mr. Boecher Matchett, of Peterboro county, harvested a crop of oats, 67½ bushels to the acre, from a tile-drained field, while from land of exactly similar quality but undrained, the crop threshed only 21½ bushels, a difference of 46½ bushels to the acre in favor of tile drain. At the price of oats last fall I calculated that the increase in that one crop nearly paid for the drains, providing further about the same to drain a field in Peterboro county as in Halton county.

Mr. Sandy Matchett, also of Peterboro county, sowed mixed grain, and from his drained land harvested 1,432 lbs. to the acre and from undrained land 923 lbs. The value of the difference in yield was estimated at \$6.27. Barley was the crop reported on by Albert Snell, of Haldimand county. From drained land he harvested 31 bushels, from undrained 27½ bushels, and the value of the difference was \$6.61.

Wheat must respond particularly well to tile drainage. Scott McColquhald, of Tara, Ont., threshed 29½ bushels of wheat from drained land and only 11¼ bushels from undrained. This, I suppose, was an exceptionally good showing; the difference in yield was figured at \$19.44.

The value of alfalfa as a crop for the dairy farmer was brought forward most strikingly on a card which stated that the six per cent of the Ontario Agricultural College in 10 years had been 4.77 tons to the acre. The number of pounds of digestible protein in a ton of alfalfa is 335, in a ton of alfalfa hay 235, and in a ton of alfalfa clover 144. If these figures be correct, and I see no reason to doubt them, an acre of good alfalfa hay is worth in one year fully as much as four and one-half tons of alfalfa hay at present prices would be almost \$100. Alfalfa has always been one of my principal crops, and although I have not been able to make as high a yield as reported for the college, it was reassuring to notice the relative value of alfalfa hay as a dairy feed.

Poultry and Dairying.

It would not do to stop these notes without some mention of the poultry department of the special car, which J. W. Clark, of Chatham, is in charge. One point I noticed in the exhibit brought home to me very clearly a reason why the dairy farm is the very best place to run poultry as a side line. A card informed me

(Continued on page 9.)

Duty
Paid **\$1700**

John Fordyce Lansing, Mich., U.S.A.



The New **REO "SIX"**

The "Gold Standard" of Sixes

RECENTLY A GROUP OF GENTLEMEN were discussing motor cars—as men so often do, since there's no other peaceful topic that is of such general and such vital interest.

THEY WERE TALKING SIXES, pro and con, and "wondering whether" such and such Sixes were really good cars this year—in view of their past unsatisfactory records.

ONE SAID, "of all the Sixes made, there's just one you can tie to with certainty that it will live up to all expectations—because of its own and its makers' past record.

"THAT'S THE REO SIX—the handsomest as well as the sturdiest Six made.

"IT'S THE GOLD STANDARD of Sixes."

"WE ARE ALL AGREED ON THAT, I guess," exclaimed another—"there never can be any doubt as to the quality of a Reo.

"REO CARS HAVE BEEN the 'Gold Standard' of automobile values since there were automobiles."

HAD YOU THOUGHT OF THAT—just in that way?

IF NOT, JUST CONSIDER for a moment the tremendous significance of that fact—for it is a fact that all motorists look upon Reo as the "Gold Standard."

YOU MAY DOUBT, you may question, claims made for other cars; but you accept as a fact firmly established, that a Reo is 24-karat fine from radiator cap to tire holder.

THAT BEING THE CASE, seems as if prudence dictates only one choice for your automobile—the one Six of which you can be absolutely sure—a Reo Six.

YOU CAN'T AFFORD—no matter what your income—you can't afford to experiment in so important a matter.

FOR IT ISN'T THE PRICE—goodness knows that is lower than anyone ever dreamed a first-class six-cylinder car could ever be bought for. It isn't the price that counts.

IT'S THE UPKEEP—cost of operation and maintenance; and the still more important fact that if the Six you buy fails to live up to the glowing praises of its makers your pleasure will be marred on every trip you take and as long as you own it. And the longer, the more unsatisfactory.

THAT'S WHAT COUNTS. If it proves to be a racing car—and therefore a "gasoline hog"; or so light it will soon show its flimsiness by squeaking and creaking and groaning over the least inequality of the road;

IF IT'S ONE OF THOSE "2 in 1" affairs that looks simple from the outside but proves as inaccessible as a burglar-proof safe when you try to make some adjustment or replacement or repairs;

IF IN FACT, IT FAILS to make good on any one of a hundred counts—then it falls short of the Reo standard—and you will be grievously disappointed.

SO THE ONLY WAY to be absolutely certain that the coming year's motoring will be as pleasurable as you can desire, is to take no chances—choose the "Gold Standard" for yours.

UNALLOYED PLEASURE of ownership is assured when you select this car that all the world considers the "Gold Standard" in value at its price and in enduring qualities with the lowest depreciation from year to year—a Reo Six.

REO MOTOR CAR COMPANY Lansing, Mich.



Another Money-Saver

Griffiths GIANT YOKE-ROPE

Costs you less than a third the price of a Leather Bred Strap and gives you greater strength where you need it.
Note the heavy steel slide that bears the strain and wear of the yoke ring—the strong, hard rope that ensures greater strength.

90c. PER PAIR, COMPLETE WITH HARD SLIPS AND SLIDES. (\$1.00 West of Port Williams.)
Order a pair from your dealer, or if he doesn't stock them write us and we will see that you are supplied. Get acquainted with Griffiths' Specialties. You get more value for less money by using them. Write to-day for Booklet entitled "What's New for the Stable."
G. L. GRIFFITH & SON, 76 Waterloo St., St. Catharines



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For our Booklet, "Homeseeker's and Settler's Guide," tickets and information, apply to City Ticket Office, 53 King St. E., Toronto, or Union Station, or to H. L. Patterson, General Passenger Agent, 63 King St. East, Toronto.

CANADIAN NORTHERN

The Renewing of the Farm Flock

Can the Problem be Solved by Developing a Long Distance Strain of Layers?
"Poultry Jack," Wellington Co., Ont.

WHEN I was first starting into the poultry business a good many years ago I had it all nicely "doped out" that I would carry several hundred winter layers and that the entire laying flock should be changed each year. Like most amateur poultrymen whose previous experience had all been with a small flock, multiplying the numbers looked simple. One day in a city restaurant I found myself opposite one of the best known poultry authorities in the land. I submitted my plans to him with all the eagerness, plus the cock-sureness, of a good mathematician but somewhat amateurish poultryman.

"The first trouble you will be up against with a flock of that size will be renewing it every year," was the answer I received. "If you are going to retain the pullets for just one year you will have to have them all hatched out good and early as your early pullets will lay eggs in their first winter to make the plan a profitable one. You will then be up against the problem of having a great many incubators running at once and a still greater problem of getting eggs enough in a comparatively short time to fill those incubators. I think you had better start a little easier."

A Big Drawback

Experience has demonstrated that the expert was right. One of the biggest drawbacks to success in the poultry industry is the problem of renewing the flock. The plan so often advocated of changing the pullets every year now appears to me to be almost impracticable on anything but a small scale. The plan so often questioned if it is the best plan. A flock of 500 layers would necessitate 500 new pullets each year. This would mean an average of 2,000 chicks hatched out each year, half of which would be lost in brooding or culled out, and then at least one-half of those left would be cockerels, which too often are raised at a loss. My estimate may seem high, but general experience, I believe will bear me out in stating that at least four times as many eggs must be hatched as the number of pullets required. Is not the fact that most egg producers would be glad to buy pullets at the price that they receive for their surplus cockerels a confession that it costs more to produce them to a broiler age than they will bring? The equipment required to breed chickens in such large numbers is an expensive matter. The money invested in brooders is used for only a short time each season. The brooding season too is a busy one for the poultryman and in multiplying the number of chicks he more than multiplies his difficulties. The development of a strain of fowl that would be profitable through a longer period of time and thus cover the renewal requirement to one-half or one-third of its present amount, would materially reduce the cost of production as well as the worry and hazard of the poultry industry.

Work For Our Colleges

So far the efforts of our agricultural colleges seem to have been to produce a strain that will lay the greatest number of eggs in the first year. The theory sounds well. It is that each hen is destined to lay just so many eggs in her lifetime and the more we can induce her to lay in her first year, the more profitable she will be. That would be all right were it not for the cost of renewing the flock each year and I believe that our agricultural colleges would be doing the poultry industry a great deal of good if they produced a strain that section of poultrymen whose object is eggs, a more direct benefit

if they were to endeavor to introduce a strain that would lay well, for say three years. I am glad to say that some such work has lately started at the Utah Agricultural College and I would like to outline some of the results of their work, which I have just been reviewing in a bulletin from that station.

In this experiment there were seven flocks and their record for egg production runs all the way from one to seven years. The average productive life of the strain proved to be about four years. The average first year production for all flocks was 124 eggs. The average second year production was exactly the same as the first, while the average of the third was only one dozen less, or 113 eggs.

The Value of Long Distance Layers. Think what the development of such a strain as this would mean to the poultry keeper. It would mean the hatching of only one-third as many chicks each year, one-third as much incubator space needed, the difficulty of getting enough good hatching eggs at the right season of the year eliminated. In short with 500 laying hens it would mean hatching less than 700 chicks. The cost of rearing the poultry to laying age could be divided over three productive years, instead of all charged to the one year. Of course the receipts for old fowls would be lowered proportionately, but the loss would be more than compensated for in the reduced expense of renewing the flock.

The dairymen are doing their best nowadays to produce long distance cows. The cow that can make a good one-year record is preferred to the cow that makes a good seven-day record. The cow that can keep up her long distance work for two or three years is more valuable still. Poultry men could do just as well to take a leaf from the book of our wisest dairymen and develop long distance laying propensities. I would like to know if any such work has been done in Canada, in addition to that at the Utah Experimental Station.

Facts About Hens and Eggs

WHILE heavy laying is as a rule desirable, phenomenal egg records are not a guarantee of strong, rugged offspring. There must be a limit.

The hen that lays 150 eggs in a year is doing mighty good laying, and she is not so apt to break down early in life as is one which is trying to "break the record."

Pullets and yearling hens that have done such remarkable work in their first season, are not so apt to do heavy work in the second year.

Extreme cold and extreme hot weather affect hen alike. The regular layers give the best sized eggs, while the spasmodic layer generally produces an assortment of sizes.

The size of the egg becomes smaller as the hen increases the number of her brood. So also does the color gradually change from a dark brown to a light color towards the close of the Hens.

There is not very strong fertility in the eggs laid by a hen that will produce from 30 to 50 eggs in succession. As a rule, hens that lay steadily during cold weather are indifferent hot weather layers.

The majority of eggs are laid between the hours of 9 o'clock in the morning and 3 o'clock in the afternoon.

Remember that full fed chicks are paying chicks. It pays big dividends to hurry their growth.

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There is no gate we fit in the manufacture of Peerless gates. The points of greatest strain are scientifically enclosed and then we design braces, stronger than actually necessary, to make our gates still and rigid—they simply weather proof and so, good.

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They embody only the best material. Framework of 3/4 inch steel tubing electrically welded together. American pipe braces gates are all filled with No. 9 Green Thread/Advantech steel—built for strength and durability. weather proof and so, good.

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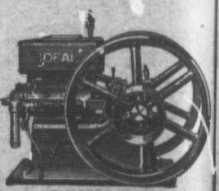
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TOP DRESS All your Crops with Nitrate of Soda alone, no matter what other fertilizers you may have used. 100 pounds to the acre for seeded, and 200 pounds to the acre for cultivated crops will do the work. The increase will yield large profits over the cost.

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DYER at it again
Get his special prices on **Fence and Gates**
Write **DYER, "THE FENCE MAN"**
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Johnny-on-the-Spot

I thrive on hard work—just "cut it up"—and it costs but a trifle to keep me bustling at the hardest work. I will give you perfect service because I am one of the famous **GILSON "Goes Like Sixty"** rollers—the one that really makes good farm roads and keeps them in perfect condition. I will give you the full particulars of Gilson "Goes Like Sixty" rollers.

Gilson Mfg. Co., Ltd., 147 York St. Toronto, Canada.

\$47.50

Hints on Lightning Rod Installation

(Continued from page 6.)
that in taste at the O.A.C., a pen of fowl receiving buttermilk laid 22 winter eggs out of a possible 100, and that another pen of similarly bred birds and similarly fed, except for the absence of buttermilk and another animal food, produced only 17 eggs. In two coops, side by side, there were two pure-bred Plymouth Rock roosters. One of them had a long head, a long back, long tail and lack of breast development. The other was a well-set-up bird with a strong back, large, bright eye, good breast development and every other indication of constitution. A study of these two types was a lesson worth carrying away.

Finally, there were two hens, both Plymouth Rocks and, to the unpracticed eye, looking very much alike. One of them, however, was a broad-body bird and had produced 293 eggs in her pullet year. The other was of no special breeding and her production was only 82 eggs. Both birds received the same food and housing. Having digested these and several other features of the special car, I thanked those in charge for the courteous attention they had given me, and bled me off to the tractor demonstration at the college.

Electro Culture

Wm. S. Aldrich, Colorado Agricultural College.

THE range of experimental work in electro-culture has extended all the way from greenhouse work and early forcing of choice marketable vegetables to grain and sugar beets, on ten to thirty acre plots, and in connection with irrigation.

As a running summary of results of experimental electro-culture it may be of interest to note the following: Beets, 33 per cent increased yield, and 14 per cent more sugar yielded; carrots, 50 per cent; cucumbers, 17 per cent; strawberries—five year plants, 30 per cent, and one year plants, 80 per cent increased yield. In general, the least increase of yield for all crops, under favorable conditions, should be about four per cent; and, for certain crops it may reach an increased yield of as much as 100 per cent. A careful analysis of the costs incurred, show that the increased yields should be about 15 per cent, to make electro-culture pay.

Besides the increased yields, the effect of electrical stimulation is markedly apparent in the improvement in quality, and in shortening the period of growth, in which sometimes as much as 40 per cent is general. But electrical stimulation of plant growth will not take the place of the most careful attention to the details of every other known method in conjunction with it, as cultivation, irrigation, fertilizing, after the best seed has been selected. What is now considered a luxury—the early marketable and succulent vegetables, the luscious fruits, and the choicest grains and seed crops of the same may well be worth the additional care, and surely more than worth the added cost of production. This applies not only to the local market, but to distance service, by parcel post, express, or fast freight.

Another result, and one which some will say, should have been expected, is the remarkable freedom of the electro-culture stock, from bacterial and other diseases sometimes incident to forced plant growth. In one writer has put it, "The installation required no attention except to clear away the cobwebs and stray shoots, etc., from the network of 'wires.'" This new kind of crop work may well be attended to even on large tracts, when wheat has a yield of from 30 to 40 per cent increase, and sold for 7.5 per cent better price by reason of its very superior quality.

Settle the Silo Question



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

Natio Imperishable Silo "The Silo That Lasts for Generations"

Its hollow, vitrified, clay tile are impervious to air and moisture—they preserve the silage sweet and juicy. The dead air spaces in the wall retain frost—making it the silo for severe climates. The continuous, reinforcing bands hold in the mortar hold it in a grasp of steel. It is a silo of efficiency, and a silo you'll be proud of. Send for our silo catalog describing it fully. Also get our splendid new book, "How to Use The Farm," described other farm buildings made of Natio Hollow Tile and just as efficient. Both book, free. We have many farm building plans in booklet, and will help you solve your building problems, free. What are you going to build? Let us hear from you. Write today.

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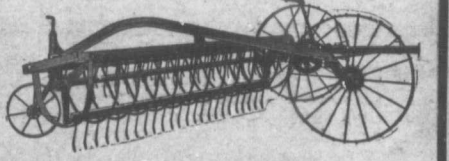
No expense for not spraying well and often. Four rows at once, thorough coating on leaves and stalks. An acre in 20 minutes. Profits sure.

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



Deering Deering Light Draft Hay Tools

All Steel Side Delivery Rakes and Hay Loaders



Don't miss seeing the line of all-steel side delivery rakes and hay loaders the Deering local agent can show you. These strong, light weight, light draft, all-steel machines do such good work and last so long that they are the cheapest buying machines you can buy.

The all-steel side delivery rakes, while light in weight and easy on horses, are strong enough to handle the heaviest crops. They have every adjustment needed for good work in the field.

Buy a hay loader with a light draft, all-steel frame; with a steel forcarriage; with 20 gears or drive chains; with one that gathers up a six-foot windrow and piles the load ten feet high—that's the kind the Deering local agent sells.

Buy Deering hay machines, mowers, dump rakes, side delivery rakes and hay loaders. They take the hard work out of haying and put the profit in. Get catalogues from the Deering local dealer, or write for them to our nearest branch house.

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What will weigh when 3 Months Old?

It all depends on what you are feeding. Young calves need plenty of Protein if they are to grow quickly and develop profitably.

"Purina" Calf Meal

Is guaranteed to contain at least 33 per cent. protein and 4 per cent. fat.

We guarantee that you will get better results from smaller quantities of "Purina" than you would have to use of any other calf meals. Ask your Dealer about the special introductory price.

Scientific Feeding Chart sent free upon request. "Purina" is put up only in 25 lb. casks.

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Automobile prices are being raised—but the Ford price has been reduced \$120 since war began

The immense Ford cash purchasing power has made it possible to overcome in many ways the serious obstacles met with by other car makers because of the scarcity and advance in prices of raw materials.

The high Ford quality is strictly maintained—and the most exacting government tests have shown that Ford constructive material even excels that used in most high grade cars.

This year the Ford car—always the most economical car to buy and to operate—beats all records for economy.

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

16

In Union There is Strength

Why Farmers Should Organize*

R. H. Halbert, President U. F. O.

FARMERS should organize for their own education and also for the social uplift of the community. The rural mail and telephone are robbing the rural sections of much of their sociability and an organization is needed to bring the farmers together. Organization means strength, and the farmer needs such an organization for his own protection. All other professions and businesses are armed to the teeth, so that the farmer cannot even build a bridge without being responsible to someone for it.

Farmers should be organized because otherwise they are without recognition. Until recently they refused representation to the Chamber of Commerce, and the toast to "Agriculture" had to be responded to by some professional man who knew nothing about the farm or farming. Farmers are the only food producers and upon the quality and quantity of the food produced, the prosperity of the nation largely depends.

With the shortage of help experienced in production on the farm at the present time, the cry that goes out to the farmer that they should send more of their sons to the battlefield is nonsense. Patriotism begins at home. The cry to the farmer to produce more food has met a patriotic response and in this manner farmers are doing their part in the great struggle.

We are being told in some quarters that we should spend our money at home and not send it to the catalogue houses or the common store for our supplies, but in this connection I want to point out that no one presumes to dictate to the manufacturer where to buy his goods. If an oil stove can be purchased at home for \$12 and at Toronto for \$10, the farmer who sends \$10 to Toronto for a stove saves \$2. If he bought the stove at home, the retailer sends the \$10 away to the manufacturer and keeps the \$2 profit. The difference lies in this that in one case the farmer has the \$2 and in the other the retail merchant has it.

*From an address delivered before the Central Dumfries Farmers' Club, Galt, Ont., in April.

A Cooperation Enthusiast

M. R. A. J. TAMBLYN, Durham Co., Ont., whose hydraulic water system was discussed in "Farm and Dairy's Machinery Number a couple of years ago, is also an enthusiast on the subject of cooperative enterprise among farmers. There are a dozen ways in which farmers can cooperate," he remarked on the occasion of our visit to see his water power. "Take fruit for instance. We had 95 members in our fruit growers' association. A few of us got out to boost the association, and now we have 50. I believe that we can make it 80. A number of us who like myself believe in cooperation, are looking forward to the day when the farmers in our district will be united to market their own hogs, eggs and all other farm produce. We have four drovers in Orono and one man could do all the work. We could have our middleman and handle the marketing of our produce much more economically than it is now being done. I believe that the United Farmers' Company of Ontario will be a great thing."

One basic point in cooperative organization and success was touched by Mr. Tamblin when he said: "I have come to the conclusion that be-

fore we can have cooperation we must have more men in our community who are willing to take their time and energy and devote it to the organization of their fellow farmers. There has to be a leader in everything, and cooperative enterprise is no exception to the rule."

Care of Car Finish

By R. A. Bradley.

CARELESSNESS in washing and polishing a car is responsible for a great many cars getting to look old and run down so soon.

In washing your car be sure first to use plenty of water and not much pressure. Don't rub the mud and dirt off, but wash it off with water. Thoroughly soften it and allow it to soak soft before trying to remove it at all. Do not allow anyone to rub fingers over a surface covered with dirt as the small particles of dust will cut the finish.

You should have two sets of pads, sponges and chamois for washing. It is a good plan never to use the same sponge or chamois on the body and running gears.

Grease makes a smeary appearance on the body and should be kept off as much as possible.

Keep sponges and chamois clean and free from grit and dirt. Use a good body soap and luke warm water for the last wash for the body.

If you can find a good body polish, it is good, but never use too much or put it on too heavy, be sure and rub it thoroughly and leave the body free from it; or after a while you will notice it making a coating over the body that is hard to remove.

It is a good plan to go to the man who sold you the car and have him wash it up and show you how to care for it, if convenient. The nice appearance may be kept on a car for a year or two with proper care.

Never allow shoes to get dry on the body if possible to prevent.

Fertility and Dairying

J. P. Fletcher, Fulton Co., N. Y.

DAIRYING is the system of farming that will maintain the fertility of the farm without the use of high-priced fertilizers. For two reasons, dairying maintains the fertility of the land. First, because in butter there is almost no plant food of value; and, second, because 90 per cent. of all the grain feeds purchased for the cow, as well as 90 per cent. of all food raised on the farm and fed to the cow, is returned to the farm.

With heavy manure and an occasional crop of clover, the land will remain productive indefinitely. When we stop to think of it, whenever we sell wheat, corn, or oats, and get one dollar, we sell about 20 cts. worth of our farm. When we get one dollar by selling butter, we sell less than one-half a cent's worth of soil.

The land owner who makes his money selling the soil fertility, and in 10 or 50 years leaves the farm worn out, is not a farmer, but a soil robber. He holds the same relation to the soil that a timber thief does to our forests. The tillers of the soil in the future will find their fathers have not been kind to them; that they have inherited barren patches. We should dairy them, because there is present money and future for the farm in it.

Farmers can individually do a great deal to improve the quality of wool placed on the market by taking care to prevent dirt getting into the wool while on the sheep, and by being more careful at shearing time in trimming the fleeces.

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One Horse Is Enough

No need to lose dollars these days if it is complete tilage. If you have one horse—that is enough! You can do as good work with the big outfits on the largest farms, when you use one of the several types of light draft, 1-horse sizes of the

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Disk Harrows

disk harrow used on the most profitable farms for a long time. It is a general purpose harrow for use on the soil and the "tilage" and for other purposes. It is the most complete and efficient harrow ever made.

The **Clark Harrow Company** is the manufacturer of the **CLARK** disk harrow and other implements. 1616 Main Street, Niagara Falls, N. Y.



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Years from now the Bissell Silo will be giving good service. It is built of selected timber, treated with wood preservatives, that prevent decay. It has strong rigid walls, air-tight doors and hoops of heavy steel. Therefore it lasts, simply because it can't very well do anything else. Our folder explains in more detail—write Dept. R.

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No matter whether the season is wet or dry, or how rich or poor the pasture—your live-stock will do better if given some supplementary ration—feed them.

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It means a big profit to you, for the reason that the Milk cows will give more milk and cream and the calves and stockers, etc., will gain weight throughout the summer.

Write for free booklet. CANADA LINED OIL MILLS LIMITED TORONTO & MONTREAL

Veteran Among Holstein Breeders

(Continued from page 4.)

There were over 100 head of cattle there, but Mr. Hallman secured first and second on his heifers. That gave him courage and he wired to Toronto if they would take his entries at the exhibition there. The return wires stated that they were booked space, man, would risk their best space. He went right to Toronto. The story of his subsequent success in the show-ring is well known to the older Holstein breeders and briefly in the first farm catalogue which Mr. Hallman got out in 1890. The introductory paragraph to the catalogue reads:

"We have exhibited only three seasons, from 1885 to 1887 inclusive and have met with perfect success. We took a larger share of honors and first prizes, diplomas and medals, than any other herd with which we competed, and we faced the best herds in the country. Some of our animals were never defeated by anything but members of our own herd. We are exhibited all along we have every reason to believe that our efforts would have been crowned with equal success."

One of the first aires used in this herd was Prairie Aggie Prince. He had a four-year-old dam with a butter record of 20 lbs. 1 ounce, a good record in those days. Another noted animal used was Netherland Statesman Cornelius, a grandson of Netherland Prince. Taking his herd as a whole, Mr. Hallman then had the best breeding of the day for show and butter records. His old cows were grand animals—Mr. Hallman believes fully as good as the best to-day. On the occasion of my first visit to Springbrook Farm he showed me some of the first records of production ever kept in Canada. For instance he had the records that he had taken from day to day of Minor Rooker, a cow sold to the New Brunswick government. As a three-year-old she produced 7,615 lbs. 2 oz. of milk in eight months. This record was made without frequent feeding and while the heifer was milked three times daily for a part of the time, the last milking at night was always at six o'clock. Another famous individual in this herd, Dreamy Eyes, that won from Cornelius Tenen in the show ring, made 1,570 lbs. of milk in a month as a three-year-old.

Holsteins Were Not Popular.

Financially, however, all was not going well with Mr. Hallman. In spite of his show ring successes, his breed was not popular, and he could not get even reasonably good prices for his stock. Fifty dollars to \$60 was a good price for a pure bred Holstein bull ready for service and compared with the prices which had to be paid for the cattle, the selling price was not profitable. Mr. Hallman could not afford to buy the cattle that he desired to, and when he sold his animals, he knew of a certainty that he would meet them again in the show ring. He usually held his own, however, as he had the faculty of selecting and feeding.

"People called me crazy and foolish to stay in the business," remarked Mr. Hallman to me once when speaking of this difficult portion of his career as a breeder. "About that time, however, I took a trip to New York and saw the great herds there. I saw what Holsteins could do under right conditions which I didn't have a chance to give my cattle. I knew that the Holsteins would do equally well in Canada, and looking ahead I knew that they would soon find a place in my own country. I knew what was before me as producers of both milk and beef."

A Good Farm Purchased. In the meantime, Mr. Hallman had transferred to another farm, after 15 years of almost wasted effort on the

(Concluded on page 13.)

Barrett Money Savers for Farmers

DON'T eat more dinner than you can hold simply because the cook has prepared more for you than you can eat. If you do, you'll probably have "inside information" that things are not quite right. By the same token, don't buy something that you paid one cent for a postage stamp he would have been a spendthrift.

But, when you find things that have an every-day need, selling at moderate prices, then is your time to economize by buying. Such products will save you money. We make such commodities. This page describes seven of them. Sold by good dealers everywhere.

Everjet Elastic Paint

We have a product called Everjet Elastic Paint that will save you many a dollar every year. It is a wonderful roof paint. Applied to ready roof appearance, Everjet is invaluable for farm implements. Protects them from rust and keeps them new. It never peels, scales or cracks. The best carbon paint made. Good wherever you have exposed surfaces. Try a can.

Everlastic Roofing

Insurance against wind, weather and water can be had very cheaply by laying Everlastic Roofing wherever you have a slanting roof. The best "Rubber Roofing" on the market at the price. It is easy to lay, costs little and gives satisfaction for years. Just the thing for barns, out-buildings and poultry houses. Comes in rolls of 1, 2 or 3 ply weight, each roll 36 inches wide. You could pay twice as much and not get as good.

Carbonol, Disinfectant and Deodorant

The most necessary thing you could have around the house is a bottle of Carbonol. It is the best disinfectant, healer and cleanser ever made. Removes grease, germs and odors. Therefore, put some in your kitchen, which you clean house. Heals cuts and wounds; prevents blood poisoning. Wonderful in the sick room because it prevents contagion. It will keep your stable and hen house clean, and drive flies away from garbage pits and cattle pens. The best thing you could have for a hundred different uses. Get a bottle today.

Creonoid, Lice Destroyer and Cow Spray

One of the little things so often overlooked is the relation between contented live stock and profits. Best results cannot be secured if your live stock is infested or worried by flies. Apply your cows, horses, pigs, poultry, deers vermin and lice. Keeps flies away. Makes healthy porkers, happy cows, good tempered horses. More milk from your live stock. More eggs from your hens. More milk from your cows. Follow directions carefully.

Amatite Roofing.

Amatite Roofing is distinctive for two reasons—its bright attractive, sparkling appearance and its great durability. It has wide fans, too, as the roof Amatite is made in rolls, each roll containing enough to cover 100 square feet with a 3 inch lap.

Barrett's Grade One Liquid Creosote Oil

The best fence post made will rot if not protected with a good preservative. You can make an ordinarily good fence post last 20 years by using Barrett's Grade One Creosote Oil. It is the best wood preservative on the market. Penetrates deeper than any other Creosote preservative on the accomplishments? We can show you tests to prove this. Hence it of timber renewals. And it makes shoes repairs permanent. If you have lining gutters of wood or metal, and for flashings around chimneys. Amatite is a real "handy man" and you ought to have it on hand. Good for a hundred uses.

Elastigum Waterproof Cement

Many a farmer or horse owner has saved the day, by having Elastigum handy. This tough, elastic, adhesive cement is a wonder for those quick repairs that are daily coming up. And it makes shoes repairs permanent. If you have a leak to fix, a joint to seal, use Elastigum. Uncolled for joining or regum is a real "handy man" and you ought to have it on hand. Good for a hundred uses.

Send for illustrated booklet describing Barrett Money Savers in detail. Address nearest office.

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What is an Internal Bath?

By R. W. BEAL

Much has been said and volumes have been written describing at length the many kinds of baths civilized man has indulged in from time to time. Every possible resource of the remedy has been brought into play to fashion new methods of bathing, but strange as it may seem, the most important, as well as the most beneficial of all baths, the "Internal Bath," has been given little thought. The reason for this is probably due to the fact that few people seem to realize the tremendous part that internal bathing plays in the acquiring and maintaining of health.

If you were to ask a dozen people to define an internal bath, you would have as many different definitions, and the probability is that not one of them would be correct. To avoid any misconception as to what constitutes an internal bath, let it be said that hot water enemas is no more an internal bath, than a bill of fare is a dinner.

If it were possible and agreeable to take the great mass of thinking people to witness an intestinal post-mortem, the sights they would witness of the things they would learn would improve each such lasting benefit and impress them so profoundly that further argument in favor of internal bathing would be unnecessary to convince them. Unfortunately, however, it is not possible to do this, profitable as such an experience would undoubtedly prove to be. There is, then, only one other way to get this information into their hands, and that is by acquainting them with such knowledge as will enable them to appreciate the value of this long-sought-for health-producing necessity.

Few people realize what a very little thing is necessary sometimes to improve their physical condition. Also, they have almost no conception of how little carelessness, indifference or neglect can be the fundamental cause of the most virulent diseases and ailments. For instance, that universal disorder from which almost all humanity is suffering, known as "constipation," "auto-intoxication," "auto-infection," and a multitude of other terms, is not only curable but preventable through the consistent practice of internal bathing.

How many people realize that normal functioning of the bowels and a clean intestinal tract make it impossible to become sick? "Man of today is only fifty per cent. efficient." Reduced to simple English this means that most men are trying to do a man's portion of work on half a man's power. This applies equally to women.

That it is impossible to continue to do this indefinitely must be apparent to all. Nature never intended the delicate human organism to be operated on a hundred per cent. overhead. A machine could not stand this and would not break down, and the body certainly cannot do more than a machine. There is entirely too much unnecessary and avoidable sickness in the world.

How many people can you name, including yourself, who are physically vigorous, healthy and strong? The number is apparently small.

It is not a complex matter to keep in condition, but it takes a little time, and in these strenuous days people have time to do everything else necessary for the attainment of happiness but that of giving their bodies their proper care.

Would you believe that five to ten minutes of time devoted to systematic internal bathing can make you healthier and maintain your physical efficiency indefinitely? Granting that such a simple procedure as this will do what is claimed for it, is it not worth while to incur no cost but which will accomplish this end? Internal Bathing will do this, and it will do it for people of all ages and in all conditions of health and disease.

People don't seem to realize, strange to say, how important it is to keep the body free from accumulated body-waste (poisons). Their doing so would prevent the absorption into the blood of the poisonous excretions of the body, and health would be the inevitable result.

If you would keep your blood pure, your heart normal, your eyes clear, your complexion clean, your head keen, your blood pressure normal, your nerves relaxed, and be able to enjoy the vigor of youth in your declining years, practice internal bathing every day.

Now that your attention has been called to the importance of internal bathing, it may be that a number of questions will suggest themselves to your mind. You will probably want to know WHAT an Internal Bath is, WHY people should take them, and the WAY to take them. These and other questions are all answered in a booklet entitled "THE WHAT, THE WHY and THE WAY OF INTERNAL BATHING," written by Doctor Chas. A. Tyrrell, the leader of the "B. L. Cascade," whose lifelong study and research along this line make him the pre-eminent authority on this subject. Not only has internal bathing as a health-producing method been proved, but the lives of millions of individuals have been equally spared and prolonged. No other book has been written containing such a vast amount of practical information to the business man, the worker and the housewife. All that is necessary to secure this book is to write to Dr. Tyrrell at Room 385, 267 College Street, Toronto, and someone having read this article in Farm and Dairy, and same will be immediately mailed to you free of all cost or obligation.

As you realize now, more than ever, the truth of these statements, and if the reading of this article will result in a proper appreciation on your part of the value of internal bathing, it will have served its purpose. What you may wish to know is to avail yourself of the opportunity for learning more about the subject, and your writing for this book will be followed by the same opportunity of putting off doing this, but send for the book now, while the matter is fresh in your mind.

"Procrastination is the thief of time." A thief is one who steals something. Don't allow procrastination to cheat you out of your opportunity to get this valuable information, which is free for the asking. If you would be natural, be healthy. It is unnatural to be sick. Why be unnatural, when it is such a simple thing to be well?—(Advertisement.)

Improvement of Potatoes by Selection

By Prof. C. A. Zavitz, O.A.C., Guelph

WHAT I term individual hill and tuber selection for potato improvement can be carried out in the large field, the market garden, the family patch or the nursery plot, wherever the potato is grown. In ordinary culture, however, the potato sets usually vary in size, and consequently, the hills vary in productiveness. In order to select most readily those hills possessing the proper characteristics desirable characteristically, care should be taken to plant tubers or sets which are uniform in size. In commencing the work, therefore, it is not only important to use the best variety obtainable for the purpose, but also to give the potatoes in the individual hills an even chance for development.

When the crop is beginning to ripen there is frequently a noticeable variation in the appearance of the plants. This permits of a selection of the hills having vigorous plants with the best foliage and the least amount of late blight and of other diseases. The hills can be marked by driving stakes or laths beside those selected. An other examination of the crop can be made in a week or ten days and still another at a little later date, and according to the appearance of the plants. A few days after the tops die the selected hills should be dug individually. The product of each hill showing a good yield of uniform tubers of desirable appearance and free from rot or other diseases can be placed in a separate bag and numbered. The selected potatoes should be kept in a cool, dry, dark spring during the winter and early summer.

At planting time a uniform number of the best potatoes from each bag can be selected and each tuber cut once lengthwise and once crosswise, thus making four sets comparatively even in weight. Two feet could be allowed between the sets and three feet between the tubers in every row. Each tuber of four sets would require nine feet of the row. The length of 65 tubers, 54 feet if six tubers, and 43 feet if seven tubers were used from every bag. Three feet is a good distance to allow between the separate rows. Comparative examination can be made of the crop in the growing season and of the potatoes in the autumn, which have been protected from the individual sets, from the best hills, tubers, and from the individual sets. This affords an exceptional opportunity for determining the comparative results of the different selections regarding vigor or growth, freedom from disease, and type, uniformity, production and quality of potatoes. Tubers can be taken from the best hills, or from the best groups of four hills, or from the best rows for further selection for comparative tests, or for both. The writer recommends this individual hill and tuber selection method as one of the best and most interesting which can be followed in obtaining an improved strain of potatoes, either for home use or for commercial purposes.

In developing the foregoing system some interesting work has been done at hill selections were made from the Davies' Warrior potatoes in 1910 and again in 1911. Eleven of the best strains resulting from the selections have been tested in duplicate in each of the last three years, and the following table gives the average results of each of four of these strains as tested

in each of the years 1912, 1913 and 1914:

No.	Yield of Potatoes per acre (bu.)				Average yield of all hills.
	1912.	1913.	1914.	1915.	
1	5 210.0	321.0	190.0	243.0	266.0
2	2 197.6	286.7	166.3	213.6	213.6
3	1 131.0	120.0	117.5	119.2	119.2
4	3 146.0	177.1	164.1	162.4	162.4

These strains were all started from carefully selected hills of prominent characteristics and yet the results show most decided differences in productiveness. The Davies' Warrior potatoes in the tests where no selection was used gave an average of 236.5 bushels per acre per annum for the same period. This work has been repeated in furnishing a strain of Davies' Warrior potatoes which has given an average annual yield of over one hundred bushels per acre over the ordinary average. It has also emphasized the value of the application of a good system of selection in the improvement of the potato crop.

Calves on Skim Milk

TWO lots of calves were fed at the North Dakota Experimental Station. One lot was fed the whole milk way, the other the skim milk way. At the end of six months, the puzzle was "which are the skim milk calves?" The two lots looked equally sleek and thrifty. Mr. Peters, Husbandman of the Experiment Station, explained that the experiment was conducted to determine how well dairy calves could be grown on skim milk.

The first three weeks both lots were fed whole milk. From then on, Lot No. 1 was fed eight per cent whole and eight pounds skim milk daily, and Lot No. 2 was given 16 pounds of skim milk and one pound of boiled fat associated with the milk taken out in the cream. During the first three months Lot No. 1 made somewhat larger gains and looked a little more robust, but during the next three months, Lot No. 2 caught up. At six months several experienced dairy cattle breeders pronounced the calves in Lot No. 2 equal to those in Lot 1 in physical merit and dairy development. When the calves were five weeks old they were also fed clover hay and a grain ration made up of equal parts of whole oats and bran. This was added one-third by weight of the whole milk. It cost 15 less per head to feed the skim milk calves than those fed whole milk, to the age of six months.

The reorganization of school boards, the doubling of the expenditure, or the introduction of consolidated schools, would not usher in an educational millennium, but they are the things that are manifestly in the direct line of progress and without which we are not going to get very far from our present condition. There was a time when Ontario made the mistake of being in the very front of educational progress. That time seems to have passed, so far at least as rural education is concerned. We shall have to arouse the educational state of complacency and self-satisfaction, cease scoffing at the new movements that are putting others in the front rank, learn from what is going on in other countries, and join the march, or rather the procession, in the rear.—Richard Lese, M.A., Inspector of Schools, Peterboro Co., Ont.

Washing the hands before milking would be almost a joke on the farms; but all the best dairymen do so.

You'll Find the Advertisers in FARM AND DAIRY advertising reliable goods. They want to know you; they are sure you will know them. When writing them don't forget to tell them you saw the Ad. in FARM AND DAIRY.

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A Veteran Among Holstein Breeders

(Continued from page 11.)

first place purchased. He had never been satisfied with his farm, realizing that on it he could never attain to his ideal of what a farm should be. Accordingly he purchased 160 acres of the farm he now occupies. Seven acres have been added since. The buildings were all on the farm, such as they were, with the exception of the site. Mr. Hallman had had a wooden shed on his first farm, one of the first built in the county. On his present farm is the first cement silo in Waterloo county, and I might remark on the side that on the Institute platform Mr. Hallman has made many a convert for corn growing and the silo.

The old stables have been remodelled, until now they are light, sanitary and thoroughly up-to-date. Recently the top part of the barn has been rebuilt and red paint with white trimmings have made the outbuildings on the Hallman farm quite in keeping with the quality of the splendid Holstein cattle that they house. The house has been improved. The planting some years ago when Mr. Hallman first came on the farm is now beginning to add its touches to the making of one of the finest farm homes in Ontario. All of the 160 acres has been cleared except 20 acres of swamp and bogging land. On this farm Mr. Hallman has left his financial worries behind him and people are beginning to ask him why he does not retire.

"My greatest pleasure is right here," he explained to me. "I feel that I have not yet finished my work. I have had success in the show ring. I now want to combine records with desirable conformation, and I feel that with time I can do it. I had to work too hard in the early days to care for record books. Going to town to retire, I notice, is a choice for many between working with pick and shovel or dying."

Connection With Holstein Association.

The sketch would not be complete without a reference to Mr. Hallman's connection with the Canadian Holstein Breeders' Association. In one capacity or another Mr. Hallman has been on the official board of the Association since its first inception when a few Holstein enthusiasts met in the sheds at the old Toronto exhibition and organized the present Association. There were just a half a dozen at that meeting and Mr. Hallman was appointed one of a deputation to meet at the old Parliament Buildings to get a permit to issue a herd book. They could not, however, get a charter, as they wanted a Dominion charter, and all they could get at Toronto was a Provincial one. Again he was on the committee appointed to draft a set of rules and revise the American constitution, in order to get out their own herd book in 1892. Two reports were submitted by this committee, one on getting out a special herd book for the association, and the other on amalgamation with the Agricultural and Arts Society. The first proposal was voted down on the ground of expense.

Mr. Hallman was elected president of the Association that year, and E. B. Smith and he were appointed a committee with full power to make arrangements to go in with the Agricultural and Arts Society. Mr. Smith got the idea that there was too much Short-horn influence in that association and he offered to do the same work for the same money as the Agricultural and Arts Society would do it. Mr. Hallman took things in his own hands and called a meeting of the Association at Guelph to make arrangements for their own herd book. At that meeting the herd book was established and the Holstein Association started on the independent road that it has since followed.

Mr. Hallman is still an enthusiastic breeder and has the same faith in the Holstein that he had when he bor-

rowed money to buy his first Holsteins in his young manhood. He is still in demand as a judge of Holsteins at the larger fairs. In his herd he has some of the best blood of the breed and his work as a breeder is still far from complete. What a satisfaction it must be to this veteran breeder to witness the present day popularity of a breed which he championed so ably when admiration for the Black and Whites was considered "foolishness"!

Good Roads Wisdom

"To the farmer better roads frequently mean the difference between affluence and bankruptcy," said Prof. Ernest Flagg Ayres, highway engineer of the Oregon Agricultural College in a lecture to the summer students at that institution.

Wisconsin farmer held 1,000 bushels of potatoes in his cellar, waiting for a good price. He was offered 92 cents in March, but they must be delivered in town, and the roads were so bad he could not haul over them. When he finally got them to market, his potatoes brought him 30 cents a bushel. The bad roads cost him \$620, and now he is an ardent booster for any movement promising relief.

"While the farmer receives as great financial gain from good roads as anyone, he has the added social benefits. Under present conditions it is often impossible for his children to go to school regularly, his family to go to church except when the roads are dried out, his doctor to reach him in time to be of most help, or his mail to be delivered regularly. With better roads this can all be changed, and graded schools and larger churches always follow these improvements."

The Mother's Lament

By F. G. H. Pattison, Winona, Ont.

I DID not raise my boy to be a colonel but had I known how simply it were done.

No need to face the murderous foe infernal.

No need to slay the sanguine Hun.

No need to flay the hide from off the Kaiser.

Nor pull his teeth out slowly one by one;

If I had only been a little wiser.

And "Savvied" how to train my only son.

I could have raised my boy to be a Colonel.

And kept him far from either shot or shell.

He would have had a niche in fame eternal.

And drawn a double salary as well.

Entirely freed from all my fears material.

And only proud of duty nobly done.

I would have raised my boy to be a Colonel.

Of course I mean an "honorary" one.

Hog Feeding Notes

The fattening hog should never be overfed, just enough so that everything is eaten before the pig leaves the trough the first time. Young pigs are best kept decidedly hungry. An exception to this case would be where appetites are satisfied on roughage or water.

A necessary concomitant to good hog feeding is exercise. Young pigs and breeding stock need it particularly. Even market hogs need it right up to the final finishing period, when they may be encouraged to leave out exercise and make the putting on of fat the business of their lives.

The Importance of FRESH oil

Oil is composed of very small balls, or globules, which roll between the parts oiled—that is the action of lubrication. As soon as these balls become broken, as they quickly do, they are useless—worse than useless for they keep away fresh oil. That is why the old-time splash system of oiling fails—it uses and re-uses "worn-out" oil. Following the lead of big automobile makers, we use in the "Superior" Separator

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We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with us as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of our contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

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The Rural Publishing Company, Ltd.
PETERBORO, ONT.

"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and abide."—Bacon.

The Nor' West Farmer

WE wish to extend our sympathy to the Nor' West Farmer in the loss it has sustained in the destruction by fire of the building and plant of the Stovel Company, Publishers, of Winnipeg, in which it was edited and printed. The Nor' West Farmer, of which Mr. C. D. Stovell is managing director, is one of the outstanding agricultural papers of the west. Its wide circulation and the firm position it holds in the estimation of western farmers insures its speedy recovery from the calamity with which it has been overtaken.

Condensery Scheme Exposed

THAT the farmer should exercise the greatest caution in investing his money in schemes which the sly tongues of promoters can make so alluring, has received additional emphasis by the attempt to float a company, the object of which was, according to the prospectus, to establish a milk condensery at the Brampton, Ont. To the average man, who, of course, does not pretend to have an expert knowledge of stocks and bonds, the affair looked plausible. "To dairy farmers a condensery, which would supply an additional market for their milk, naturally appealed strongly. To the paper issued by the company, the sounding title, "Seven Per Cent. First Mortgage Gold Bonds," was given. A premium of sixty dollars of common stock was given with each \$100 bond. To make the bond appear more substantial still, arrangements had been made with a trust company, which agreed that upon the deposit of twenty-three dollars when the bond was purchased they would guarantee its payment at par at the end of thirty years. Bonds could also be paid for in milk, delivered at the condensery when built. The impression was given that the Department of Agriculture approved of the formation of the company.

To the uninitiated, the scheme was attractive.

Submitted to the scrutiny of an expert, however, it was found that it lacked practically everything that characterizes a sound business proposition. Saturday Night, in exposing the scheme, pointed out that the first prospectus of the company violated the Ontario Companies Act, in not giving the proper statutory information. Not having tangible assets, the company was not entitled to issue bonds. The trust company was playing safe in guaranteeing the so-called bonds, 1: the twenty-three dollars at the end of thirty years at ordinary rates of interest, would amount to \$100. The milk bonds were not subject to the guarantee. To the statement that the Department of Agriculture in any way favored the formation of the company, the Minister, in a letter to the press, has given an unqualified denial.

The publicity given to the scheme and the prompt action of the local district representative, seems to have thwarted the plans of the promoters and to have resulted in the farmers who invested having received their money back. It is stated, however, that these same promoters have been successful in disposing of \$50,000 worth of stock in another condensery. They will likely stay in the business as long as it can be made to pay. But that will not be long if dairy farmers profit by what has come to light in connection with the Brampton company. In the meantime why is there not a law in the other provinces, as there is in Manitoba, that requires a company to satisfy the Attorney-General's Department as to its reliability before it can offer its stock to the public?

Canada's Railway Problem

THE necessity of a loan of \$12,000,000 to the G.N.R. and another of \$8,000,000 to the C.P.R. in order to preserve the solvency of these two railway companies for another year, has had the effect of again turning the attention of the people of Canada to the question of the nationalization of railways. The tabling of the correspondence in the House of Commons, showing that the G.T.P. has been formally offered to the Dominion Government, has stimulated interest in the question. The country is faced with the alternative of letting the railways go into the hands of receivers, or meeting the annual deficits of the companies until population has overtaken railway construction, or of taking over the roads and operating them at a loss for an equal period of time. To the first of these alternatives it is objected that should the railways pass through a receivership the nation's credit would be seriously damaged at a time when circumstances require that it be kept in as good a condition as possible. To the second it is acknowledged that the people are becoming disgusted with the spectacle of seeing the millionaire promoters of the roads walking off annually with all they can carry of the people's money. The question of nationalization, therefore, promises in the near future to be a question of public policy on which the people will have to decide.

Although it is an easy matter to overestimate the damage that would result if the railways involved were to go into the receiver's hands, and although the burden of meeting annual deficits would not be lessened if the people took over the roads, there are other reasons why the roads should be nationalized. Railways are public service utilities, paid for and maintained by the earnings of the people, against which they are the greatest single charge. They should be operated, not with the object of making profits, but of furnishing efficient and economical service. Wisely distributed, they would pay their way and not be burdensome. If they are operated at a loss it is because their lines have been extended beyond the needs of the people. Annual deficits, made up by annual draughts on the public treasury, although a very strong argument against

leaving the building of railways in the hands of titled Empire wreckers, is no argument against nationalization. Taking over the roads will not atone for our errors in the past, but it should enable us to evade a repetition of such errors. Canada has accumulated railway experience rapidly during the last ten years, and by now should be able to publicly administer her railways with at least approximate efficiency. The success we have achieved in the administration of our postal service furnishes reason to believe that our railways may in time, be made equally efficient.

The Things That Are Caesar's

IN theory, the income tax is superficially plausible; in practice it is unworkable. That it is unworkable is fully borne out by the findings of Basil N. Manly, of the United States Commission of Industrial Relations. In his able analysis of the income tax situation, Mr. Manly shows that last year in that country, the income tax was dodged to the extent of \$320,000,000, which exceeds by \$111,000,000 the total amount raised by the tariff during the same time. In the case of one Standard Oil magnate, he shows that the income tax due was \$241,000, whereas the amount actually paid was only \$58,000.

The discrepancy between the amount collectable and the amount collected may be put down by some as due to the bad administration of the law. It may be held that in Canada the tax collector is not so easily evaded. Such a position, however, is untenable. Canadians are as efficient tax-dodgers as their Yankee cousins. The discrepancy is primarily due to the impossibility of collecting the income tax with any pretense of uniform justice. The income of the man who draws a straight salary is easily assessed, but how is the income of the doctor, lawyer, civil engineer, and others, whose incomes are in the form of fees, or of the business man, whose income is in the form of interest or profits, to be even approximated. To say it is a reflection on the part of our fellow citizens to suggest that they would defraud the country of its dues may be polite, but it does not show a clear insight into the human character as recent public disclosures have revealed. One of the most prominent men of his day in Canadian public and financial life endeavored, by the disposition of his property, to defraud the government of over half a million dollars of succession duties. If men will falsify their wills, they will also falsify their income statements. The experience of the United States has shown that the income tax is a failure, its chief characteristic being that it puts a premium upon dishonesty and a check upon industry. The less we hear of such means of raising revenues in Canada the better.

Farmers who have sons or daughters will do well to subscribe for plenty of farm papers. What are a few cents a week compared with the value received if they read about agricultural matters? Before us lies Farm and Dairy for March 23, in which several boys outline the methods which brought them success in the Acro Profit Competition. Such practical articles as these cannot help but stimulate other boys to try their hand at some of the experiments.—The Canadian Statesman, Downmanville.

It is absolutely useless to expect a solution of the rural problem from any source outside of the farmers themselves. We need never expect our merchants and manufacturers and lumber magnates and bank presidents and politicians to bury their selfish interests and advocate measures that will help the farming community, even on the broadest national grounds, if their own interests are to be affected in the slightest degree.—E. C. Drury.

The Farm Flower Garden

Wm. Hunt, Florist, O.A.C., Guelph.

THE prevailing scarcity of farm help owing to so many of our young men being absent fighting for King and Empire, and the security of our Canadian homes, makes it quite possible that the farm lawn and garden may of necessity have to be somewhat neglected until the war is over. Possibly a few practical suggestions as to the easiest and best way to help decorate and brighten up home surroundings with plants and flowers may be acceptable, so that our boys may not return and find the old homestead altogether desolate and forlorn looking. With these facts in view, the following notes on plants especially suitable for the surroundings of farm homes may be of service at the present time.

Climbing Vines.

No plants improve the appearance and make even the most plain and unpretentious building look prettier and more home-like than do trailing vines. The easiest to grow and secure is the Ampelopsis Quinquifolia (Virginia Creeper) or the Ampelopsis Engelmanni, the last named being of the first named. Both are quite hardy in Canada. Ampelopsis Veitchii (Boston Ivy) will cling well to a stone or brick wall, but is not quite as hardy as the two first named.

Hardy Perennials.

A few of the best hardy perennials that may be planted any time during the month of May, are Rudbeckia (Golden Glow), Miss Mollath (Sun-flower), Perovskia Larkspur and Asters or Michelmas Daisies. These grow to a height of from four to six feet and are suitable for planting as a background.

Hardy Shrubs.

The Lilacs, of which there are now such a number of beautiful varieties of numerous colors and shades, ranging from white and lilac to the deepest purple, are still one of the best flowering shrubs grown. Plant a group of four or five kinds of Lilacs at the side of the lawn. Their profuse and sweetly perfumed flowers will lend a charm to their surroundings wherever grown.

Another useful class of flowering shrubs that will grow three or four feet in height are the Spiraea. Two of the best are Spiraea Van Houttei (Bridal Wreath) and Spiraea Lemotelli, not quite as strong growing as S. Van Houttei. Spiraea arguta that grows only two or three feet in height is also a splendid variety.

Flowering shrubs give endless pleasure to the owner with very little care and attention. The vines and shrubs already mentioned should be planted at once, the month of April really being the best time to plant them. An evergreen shrub or two, such as the Thuja occidentalis (White Cedar) or the dwarf growing Thuja Hoveyi, or a plant of the hardy Juniper varieties will also help to lend a variety of color to the lawn. Evergreens can be planted until the end of May successfully.

Annual Climbing Flowers.

The best and most effective climber grown from seed is the Cobea scandens (Cup and Saucer Vine). Seeds of this may be started now in a hot bed or in the window. Do not plant them outside until well on in June until the weather is quite warm. Give them a good light rich soil, and you will be amply rewarded with a luxurious growth and numbers of their old looking purple and white cup and saucer shaped blooms in the hot months of summer. A small rookery or stump of a tree at the side of the lawn or house covered with these and some climbing Nasturtiums makes

one of the most attractive features on the margin of even the most pretentious lawn or garden. The Wild Cucumber Vine (Echinocystis lobata) is also another good climbing vine. The seeds of this and Nasturtium as well as Convolvulus (Morning Glory) can be sown out of doors where they are to grow about the third week in May. A light loam soil, enriched with some well rotted barnyard manure and some black leaf soil from the bush dug in, will be best for these climbers, to get the best results from them.

Gladioli.

These are the easiest to grow, and the most profitable of all summer flowers for the farm garden. The corns (bulbs) can be had at seed stores from \$2.50 per 100, or about 3c a corn, up to quite high prices, but good flowers can be had from the cheaper collections. Plant the corns about four inches deep and six inches apart in groups or rows in a sunny open part of the garden. They can be planted any time from the second week in May until early in June, the third week in May being about the best time. Any fairly good garden soil if not of too heavy a nature will suit them very well. They make splendid flowers for cutting from the end of July until quite late in autumn. Cut the spikes if wanted for indoor decoration when two or three of the first lower flowers have opened. Gladioli will well repay for any trouble or care given them.

Sweet Peas should be sown at once if not already sown. They like a deep, rich soil and an open, fairly sunny position. Sow the seed about four inches apart in a drill nearly two inches deep.

Put chicken wire or maple brush up for supports about five feet in height. Pick the flowers every second day so as not to allow seed to form. If seed forms the plants will soon stop flowering. Sweet Peas are one of our best garden flowers.

Other Varieties.

Other annuals such as Asters, Pinks, Drummondii, Ten Week Stock, Zinnia, Coreopsis, Nasturtium and Mignonette seed should be sown before the end of May in an open, sunny part of the border. The seed of these should be sown about half an inch in depth and the plants thinned later on from six to eight inches apart according to habit of growth. These annuals just named grow from one to three feet in height. Good dwarf growing annuals for an edging for the border are Dianthus (Chinese Pink), Sweet Alyssum, Candytuft, and Portulaca. If you have a very hot, dry spot in the flower garden, dig and rake the ground fine and sow some Portulaca seed on the surface and rake it lightly. During the hottest months of summer you will have a very showy bed of flowers with little or no care and attention. The plants of all these dwarf growing annuals should be thinned to about six inches apart to get the best results.

It is surprising the pleasing effect a few plants and flowers have around a home. These mentioned have been selected with a view to effectiveness with as little care and trouble possible required to obtain a bright and pleasing effect.

Slowly but surely the farmer is coming to the front as the most necessary and most important factor in the material prosperity of the great human family, and with the realization that upon the proper development of the world's agricultural resources rests its future, the conviction has come that the farmers of the future must be educated.



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OUR opportunities to do good are our talents.
—J. G. Holland.

God's Country and the Woman

(Continued from last week.)

AND then, suddenly, she slipped lower among the cushions he had placed for her, and buried her face in one of them with a moaning grief that cut to his soul. She was sobbing now, like a child. In this moment Philip forgot all restraint. He leaned forward and put a hand on her shining head, and bent his face close down to hers. His free hand touched one of her hands, and he held it tightly.

"Listen, my Josephine," he whispered. "I am not going to turn back, I am going on with you. That is our pack. At the end I know what to expect. You have told me; and I, too, believe. But whatever happens, in spite of all that may happen, I will still have received more than all else in the world could give me. For I will have known you, and you will be my salvation. I am going on."

For an instant he felt the fluttering pressure of her fingers on his. It was an answer a thousand times more precious to him than words, and he knew that he had won. Still lower he bent his head, until for an instant he touched the soft, living warmth of her hair. And then he leaned back, freeing her hand, and to his face had leaped soul and life and fighting strength; and under his breath he gave new thanks to God, and to the sun, and the blue sky above, while from behind them came skimming over the water the slim birch-bark canoe of Jean Jacques Croisset.

CHAPTER SIX.

At the touch of Weyman's lips to her hair Josephine lay very still, and Philip wondered if she had felt that swift, stolen caress. Almost he hoped that she had. The silken tress where for an instant his lips had rested seemed to him now like some precious communion cup in whose sacredness he had pledged himself. Yet had he believed that she was conscious of his act he would have begged her forgiveness. He waited, breathing softly, putting greater sweep into his paddle to keep Jean well behind them.

Slowly the tremulous unrest of Josephine's shoulders ceased. She raised her head and looked at him, her lovely face damp with tears, her eyes shimmering like velvety pools through their mist. She did not speak. She was woman now—all woman. Her strength, the bearing which had made him think of her as a queen, the fighting tension which she had been under, were gone. Until she looked at him through her tears her presence had been like that of some wonderful and unreal creature who held the control to his every act in the cup of her hands. He thought no longer of himself now. He knew that to him she had relinquished the mysterious fight under which she had been struggling. In her eyes he read her surrender.

And then, in the moment's silence that followed, Philip threw back his head, and in a voice almost as wild and untrained as Jean Croisset's, he shouted back:

"Oh! the fur feets sing on Temiskaming,
As the sheen paddles bend,
And the crews carouse at Rupert's House,
At the sulen winter's end.
But my days are done where the lean wolves run,
And I ripple no more the path
Where the gray geese race 'cross the red moon's face
From the white wind's Arctic wrath."

The suspense was broken. The two men's voices, rising in their crude strength, sending forth into the still wilderness both triumph and defiance, brought the quick flush of living back into Josephine's face. She guessed why Jean had started his chant—to give her courage. She knew why Philip had responded. And now Jean swept up beside them, a smile on his thin, dark face.

"The Good Virgin preserve us, Maseur, but our voices are like those of two beasts," he cried.

"Great, true, fighting beasts," whispered Josephine under her breath. "How I would hate them!"

She had suddenly flushed to the roots of her hair.

"What?" asked Philip.

"To hear men sing like women," she finished.

"As swiftly as he had come up Jean and his canoe had sped on ahead of them.

"You should have heard us sing that up in our snow hut, when for five months the sun never sent a streak above the horizon," said Philip. "At the end—in the fourth month—it was more like the wailing of madmen. McFavish died then: a young first Scot, of the Royal Mounted. After that Radisson and I were alone, and

sometimes we used to see how' loud we could shout it, and always, when we came to those two last lines."

She interrupted him:

"Where the gray geese race 'cross the red moon's face
From the white wind's Arctic wrath."

"Your memory is splendid!" he cried admiringly. "Yes, always when we came to the end of those lines, the white frost would cover us from out on the barrens, and we would wait for the sneaking yelping of them before we went on. They hunted us like little demons, those foxes, and never once could we catch a glimpse of them during the long night. They helped to drive McFavish mad. His died begging us to keep them away from him. One day I was awakened by Radisson crying like a baby, and when I sat up in my ice bunk he caught me by the shoulders and told me that he had seen something that looked like the glow of a fire through sands and thousands of miles away. It was the sun, and it came just in time."

"And this other man you speak of, Radisson?" she asked.

"He died two hundred miles back," replied Philip quietly. "But that is unpleasant to speak of. Look ahead, isn't that ridge of the forest glorious in the sun?"

She did not take her eyes from his face.

"Do you know, I think there is something wonderful about you," she said, so gently and frankly that the blood rushed to his cheeks. "Some day I want to learn those words that helped to keep you alive up there. I want to know all of the story, because I think I can understand. There was more to it—something after the foxes yelped back at you?"

"This," he said, and ahead of them Jean Croisset rested on his paddle to listen to Philip's voice:

"My seams gape wide, and I'm tossed aside
To rot on a lonely shore,
While the leaves and mould like a shroud enfold,
For the last of my trails are over—
But I float in dreams on Northland streams
This never again I'll see,
As I lie on the marge of the old Portage,
With grief for company."

"A canoe!" breathed the girl, looking back over the smutty lake.

"Yes, a canoe, east aside, forgotten, as sometimes men and women are forgotten when down and out."

"Men and women who live in dreams," she added. "And with such dreams there must always be grief."

There was a moment of the old pain in her face, a little catch in her breath, and then she turned and looked at the forest ridge to which he had called her attention.

"We go deep into that forest," she said. "We enter a creek just beyond where Jean is waiting for us, and Adare House is a hundred miles to the south and east."

She faced him with a quick smile. "My name is Adare," she explained, "Josephine Adare."

"Is—or was?" he asked.

"Is," she said; then, seeing the correcting challenge in his eyes she added quickly: "But only to you. To all others I am Madame Paul Darcambal."

"Paul?"

"Pardon me, I mean Philip."

They were close to shore, and fearing that Jean might become suspicious of his tardiness, Philip bent to his paddle and was soon in the half-breed's wake. Where he had thought there was only the thick forest he



In Apple Blossom Time.

May 18, 1916.

The Upward Look

Travel Thoughts No. 32

The Planning of Our Lives.

THESE are diversities of operations, but it is the same God which worketh all in all.—1 Cor. XII, 6.

How often we have looked back over past months and thought that if we had known what was going to happen, we would have been sure that we never could have borne it. How often also, we have thought we never could have begun to plan the joy and happiness that God had in store for us. Though there are so many operations that enter into our lives, of sorrow and joy, yet we need never shrink at the thought of the great unknown future, because it is our God which plans and works all of them.

One afternoon the mate of the Alaskan Ocean steamer invited us to go all over the boat. Gladly we accepted the invitation. We went down the spacious stairways, then narrow ones, until lastly, the only means of descent were steep, narrow ladder-like steps. Away down there, they explained to us the workings of the bells. The men there knew not where they were going, but had to obey the directions promptly and explicitly. While there, suddenly swift changes of these bells followed in rapid succession. As we were out at the wide stretch near Dixon Entrance, though the mate and men tried to hide it, it was easily seen they were decidedly mystified.

On our return above, we learned that some passengers had unexpectedly been transferred to another steamer. Though those men below knew nothing of what all those sudden changes meant, the officer, high up in the pilot house knew, and he it was that gave all those orders. Their duty was simply to obey them.

Our Great Captain above knows all the future. He never, never fails to give definite, explicit orders. Our part is to carry these out with ready, joyful obedience.—I. H. N.

It is always regrettable if a woman gives up an accomplishment acquired in girlhood when she assumes the responsibility of homemaking.

saw a narrow opening toward which Jean was speeding his canoe. Five minutes later they passed under a thick mass of overhanging spruce boughs into a narrow stream as still and black in the deep shadows of the forest that looked like oil. There was something a little awesome in the suddenness and completeness with which they were swallowed up. Over their heads the spruce and cedar tops met and shut out the sunlight. On both sides of them the forest was thick and black. The trail of the stream itself was like a tunnel, silent, dark, mysterious.

"There are few who know of this break into the forest," said Jean in a low voice. "Listen, M'conn!"

"From out of the gloom ahead of them there came a faint, oily splash-

"Otter," whispered Jean. "The stream is like this for many miles, and it is full of life that you can never see because of the darkness."

Something in the stillness and the gloom held them silent. The canoe slipped along like shadow, and sometimes they bent their heads to escape the lowhanging boughs. Josephine's face shone whitely in the dusk. She was alert and listening.

"I love this stream," she whispered. "It is full of life. On all sides of us, in the forest, there is life. The Indians do not come here, because they have a superstitious dread of this eternal gloom and quiet. They call it the Spirit Stream. Even Jean is a little oppressed by it. See how closely he keeps to us. I love it, because I love everything that is wild. Listen! Did you hear that?"

"Moosva," spoke Jean out of the gloom close to them.

"Yes, a moose," she said. "Here is where I saw my first moose, so many years ago that it is time for me to forget," she laughed softly. "I think I had just passed my fourth birthday."

"You were four on the day we started, and Josephine" came Jean's voice as his canoe shot slowly ahead where the stream narrowed; and then his voice came back more faintly: "that was sixteen years ago to-day."

A shot breaking the dead stillness of the sunless world about him could not have sent the blood rushing through Phillip's veins more swiftly than Jean's last words. "For a moment he stopped his paddling and leaned forward so that he could look close into Josephine's face.

"This is your birthday?"

"Yes. You ate my birthday cake." She heard the strange, happy catch in his breath as he straightened back and resumed his work. Mile after mile they wound their way through the mysterious, subterranean-like stream, speaking seldom, and listening intently for the breaks in the death-like stillness that spoke of life. Now and then they caught the ghostly flutter of owls in the gloom, like floating spirits; back in the forest saplings snapped and brush crashed underfoot as caribou or moose sought the man-scent; they heard once the remote, rattling inquiry of a bear close at hand, and Phillip reached forward for his rifle. For an instant Josephine's hand fluttered to his own, and held it back, and the dark glow of her eyes said: "Don't kill." Here there were no blue-eyed moose-birds, none of the mellow throat sounds of the brush warbler, no harsh jangling of the gnatcatcher colored jays. In the timber fell the soft footfalls of creatures with claw and fang, moccasins and outlaws of darkness. Light, sunshine, everything that loved the openness of day were beyond. For more than an hour they had driven their canoes steadily on, when, as suddenly as they had entered it, they slipped out from the cavernous gloom into the sunlight again.

(To be Continued.)

Gifts For The Bride

Is there to be a June Bride whose marriage will mean a great deal to you?

And is your gift to be something expressive of your deep feeling—something fine and substantial—perhaps not costly as measured in worldly goods—yet worthy of a lifetime of service.



For such gifts, one turns instinctively to Mappin & Webb Jewellery and Silversare—the masterpieces of the greatest manufacturing Silversmith's in the British Empire.

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TWO GENTS sell it will cost to write us a postal and we will free, postage, catalogue and catalog of latest showing complete line of bicycles, tennis and swimming and pediclers of most new machinery offer your make of books. You will be satisfied at our low prices and remarkable terms. **HALD BOWEN** taking orders for Bicycles, Tires and Spacers. **DO NOT BUY** until you know what we can do for you. Write to-day. **HYSLOP BROTHERS, Limited** DAVES TORONTO, ONT.

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EM GILLET COMPANY LIMITED
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MADE IN CANADA

Amusement Dept.

Conducted by Marion Dallas.

SOMETIME ago a hostess who is always looking for something quite out of the usual, decided to entertain her friends in this unique way. She had resolved to be more observant. She was going to take time to observe more intently the common objects, which greet our eye every day. To impress her resolve upon her friends she issued this invitation:

ARE YOU OBSERVANT?

Then come and prove it Friday Evening at eight o'clock.

At "The Hermit"

Naturally everyone's curiosity was at concert pitch. When the guests had all arrived, the company was divided and sides chosen, as for a spelling bee. The hostess constituted herself the teacher and began asking questions of each one. "Will No. 1 please tell me does the Reeve of this township wear glasses?" "Yes," answered No. 1. "Does he, No. 2?" she asked quickly of the second player. No. 2 promptly answered "No." So it was found that as often as they

had seen the Reeve no one was positive as to whether he wore glasses or not. It was the same with several other prominent men. This question went all down the line "Who is the Minister of Finance?" "Describe the Union Jack," "Which church has the highest steeple in the town?" were other questions.

The hostess then passed picture postcards with photographs of public buildings. For one building there were ten different guesses. The last oral question the teacher asked was a simple one. She closed her eyes and said "What color are my eyes?" Even for this question there were many random guesses, but the questions aroused jolly controversy and good natured differences of opinion.

What a Watch Would Suggest? Before passing the questions around to the guests, the hostess sent a watch around and requested everyone to observe it closely. When everyone had examined the watch, cards and pencils followed. On the cards were these questions:

1. Support of a flower? Stem; 2. The books of an author? Works; 3. Found on a five dollar bill? Number; 4. Suggested by a doctor? Regulator; 5. Always found in a circus? Ring; 6. Used before? Section; 7. Part of a bicycle? Wheel; 8. What a policeman should do? Watch; 9. Insects? Ticks; 10. Kept by a secretary? Minutes; 11. Wedding anniversary? Crystal; 12. Decided in court? Case; 13. What every one has? Time; 14. What we give the hostess in parting? Hands.

Further Observations

The next diversion required a little more preparation. A dozen or more bottles were partially filled with different fluids, each having a distinctive odor. Coffee, ginger ale, vinegar, lemonade, and perfume of various sorts, are all suitable. There should be a bottle of plain water.

A number was placed upon each bottle, and the guests were provided with cards containing corresponding numbers. If possible put a few drops of black dye into the bottle. The dye will not effect the odor.

The bottles were placed on a table and each person was told to smell the contents and write on his card the result of his investigation. No one was allowed to speak during the examination.

The answers provoked much amusement, especially the guesses in regard to the bottle of water.

Penny For Your Thoughts

This was the last thing given to "Observe." Cards or papers had been prepared with a list of questions and the following "This commonest of all coins may well be a subject for close observance" was written on the card. *Pennies* are the subject.

1. A message? One cent; 2. Ancient mode of punishment? Stripes; 3. Mode of inflicting it? Lash; 4. Piece of armor? Shield; 5. Devoted young man? Bow; 6. A fruit? Date; 7. Place of worship? Temple; 8. A portion of a hill? Brow; 9. Youth and old age united? 1894; 10. A prominent quality in book agents? Check; 11. Best place in the spelling match? Head.

A Cobweb Party.

Now that warm weather is with us this suggestion will be in season. Have as many strings as players, and have all the same length, and either numbered or have the name of the player on a stick. At a given signal all the players pick up a stick and begin to unwind the cords which have been twisted from tree to tree back and forward and in every available corner. There must be an endeavor to untangle easily so that none of the cords be broken.

Each player follows his own wandering course and much merriment results when any of the lines cross. The one who reaches the end of his line first is declared the victor and gets a prize. Sometimes favors or fortunes are found at the end of all the strings.

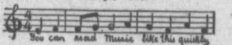
ATTRACTIVE DINING CAR SERVICE.

Probably nothing helps more to make a railway journey really enjoyable than a visit to the "Dining Car," especially if it be a Canadian Pacific Dining Car, where the passenger is assured of the highest form of efficiency in the culinary art, the choicest provisions the market affords, prepared on the scientific principle known as "Dietetic Blending."

Your favorite dish, as you like it, may be enjoyed at reasonable cost, amidst ideal surroundings, while travelling on the Canadian Pacific.

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PERFECTION
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have proved their worth. Housewives everywhere have found that the New Perfection brings comfort, economy, safety and good cooking to the kitchen. It regulates easily, instantly and surely. It concentrates the heat on the cooking and will not heat up the kitchen.

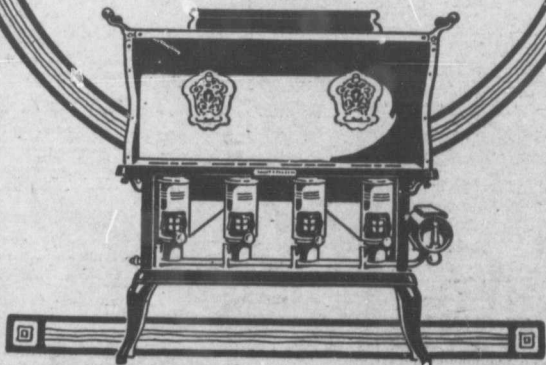
It is clean and easy to care for. It burns kerosene—no soot, ashes, smoke or odor. It is most economical, 5 to 10 cents is the average daily fuel cost per family.

Made in 1, 2, 3 and 4 burner sizes—with or without cabinet tops or ovens; also in 2 and 4 burner models with Wireless Cooking Oven.

Sold at moderate prices by hardware, furniture and general stores.

Royalite Coal Oil is best for all uses.

THE IMPERIAL OIL COMPANY, LIMITED
BRANCHES IN ALL CITIES



Wider and Shorter Skirts Predominate

Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folks. They can be relied upon to be the latest and include the most modern features of the paper pattern. When sending Farm and Dairy your order please be careful to state bust or waist measure for adults, age for children and the number of the pattern desired. Terms to Our Patrons: Each. Address all orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



GREAT changes in the skirts seem to be the predominating feature just now, the very latest skirt models being even fuller and shorter than those appearing earlier in the season. Full bonnea, overskirts in many places and wide collars, bias pleats and side pleats in a loose, flowing form, the wonderful overskirt with the ruffle that drapes in folds at the front, back and sides, also paniers and bustle drawers, are some of the style effects from which we may make a choice when making our summer dresses.

In blouses, the high collar is still receiving considerable prominence, although many who desire comfort rather than extreme style, cling to the open neck. It is possible, however, to have the collar high at the back and yet open at the front.

Light shades of tan, light and dark brown, and perhaps more particularly gray, are again among the most popular shades. Cotton voile, cambray, muslin, silk, fine crepe and corduroies are being used for lighter dresses, there being a great variety of dainty designs from which to make a selection.

1637-1657—Lady's Costume. If you are looking for a neat combination of a blouse and skirt, here is one that should appeal to the fanciful. The blouse is plain, but attractive in appearance; likewise the skirt, some such material as shepherd's check, or plaid material would be well suited to such a skirt. This costume calls for two patterns, 1637, etc. for each. The blouse is cut in sizes from 34 to 44 inches bust measure, and the skirt, 22 to 23 inches waist measure.

1642—Lady's House Dress. The busy housewife cannot afford to neglect her personal attire, and several neat house dresses fashioned from material that is easily laundered will enable her to look attractive at all times. Herewith is a dainty house dress model, which is con-

structed and convenient to slip on and off in a hurry. Six sizes: 34 to 44 inches bust measure.

1656—Junior Dress. This dainty little dress may be fashioned either with or without the bodice, or divided into two pieces, making one with bodice and the other as shown in the small view. One side of the pretty flowered waist material must be suitable for such a dress. Three sizes: 12, 14 and 16 years.

1633—Lady's Apron. This apron style is dubbed a "sway-dresser" apron. We presume that the inference is that it can portion cross and button at the shoulder. Two liberal sized pockets will be found useful in a great many ways. Three sizes: small, medium and large.

1633—Girl's Dress. The most striking feature about this costume is the pockets, which are rather out of the ordinary. However, this dress, too, can be made quite attractive without the pockets if preferred. Short sleeves are most suitable for warm weather, although the long sleeve is also shown. Four sizes: 2, 4, 6 and 8 years.

1623—Lady's Kimono. This kimono or covering jacket can be made in any of three ways, as shown by the smaller views. Each a jacket does not require much making, nor very much material, and it might make an attractive gift for a friend if one is looking for such a purchase. Three sizes: small, medium and large.

1639—Girl's Dress. This dainty gown would probably be most desirable for extra special occasions. In the large model the skirt portion is knee pleated and would need to be made from very dense material. The upper part would be made of contrasting material if the scheme as outlined is followed. The dress may be made on more simple lines by following the smaller view. Four sizes: 4, 6, 8 and 10 years.

Crisp Bits of Golden Brown—
Light Alluring Texture—
Your Rolls are Greatly Relished

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**FIVE
ROSES
FLOUR**

Breads
Cakes
Puddings
Pastries



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Read carefully this list of guaranteed pianos—note the prices—and then select one quick. They won't last long at these figures and on our easy terms. If you don't see just what you want, write us enclosing coupon. Describe just what you want—organ, square, grand or upright piano or player-piano. We have many others, and will gladly send you a list to choose from.

Ye Olde Firme Heintzman & Co., Ltd.

SEVEN SQUARE PIANO SPECIALS.

STODART, New York, small practice square piano with 6 1-2 octave keyboard, has octagon legs. A beautiful little instrument with a very sweet tone and a snap at **\$49**

MILLER BROS., New York, large carved, legged square piano, dark rosewood case with serpentine base, full metal frame and over-string scale, 7 octave keyboard, magnificent instrument in perfect condition. Special at **\$83**

WEINER square grand, dark rosewood case with carved legs, full metal frame and long over-string scale, 7 octave keyboard, is in perfect condition and a snap at **\$95**

R. B. WILLIAMS large square grand with handsome carved legs, serpentine base, has long over-string scale, 7 octave keyboard. A standard Canadian make with an elegant tone. Has been carefully rebuilt in our own workshop. Special at **\$105**

DOMINION square piano, large grand size with carved legs and serpentine base, dark rosewood case, long over-string scale with 7 1-2 octave keyboard. This instrument would be suitable for a Sunday school or hall. The tone is rich and sonorous, and this instrument at **\$115**

MASON & BIRCH square grand piano with carved legs, full metal frame, over-string scale, 7 1-2 octave keyboard. This is another standard Canadian make of piano with a magnificent tone, has been carefully rebuilt in our own factory and is practically as good as new. Special at **\$125**

HEINTZMAN & CO. grand square piano in dark rosewood case, carved legs, full metal frame with over-string scale, 7 octave keyboard. Has been carefully rebuilt in our own factory, fine genuine Heintzman tone and finish. Special at **\$145**

ASK ABOUT TERMS.

Our terms are surprisingly easy. You can easily afford them on any instrument.

MAIL THIS COUPON.

Please mail me complete list of bargains in I saw your ad in Farm and Dairy, May 18.

Heintzman Hall
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Name
Address

Reputation Gained in Short Time
Mrs. Chas. Stewart, Algoma Dist., Ont.

AS I have only been on the farm six years and my experience is perhaps rather limited, but even in that time I have gained quite a reputation as a butter-maker. I will follow my summer method of making butter (my winter-method is similar, only that cream requires to be kept in a warmer place it to require) to be kept in a warmer place it to require, only that cream requires to be kept in a warmer place it to require.

After separating I put the cream down cellar to cool. Then it is put in a stone jar and every time I add cream and stir well. I have three cows and I generally churn two or three times a week, so that the cream is never old. I scald everything I use in the making of the butter, with boil-

ing water and then cool off with cold water.

I churn four gallons cream at a churning to which I add scarcely half a teaspoonful of butter color. The gas is taken off three times in the first five minutes of churning. When nearly butter, I add a dipper of cold water, which helps to gather it. I wash my butter twice. I put a handful of salt in the wash water and drain well. Four gallons usually makes about 12 pounds of butter and I put in a heap-desert spoonful of fine table salt to each pound. I work the salt in and leave for a time, then work again and print. I try to make my prints as neat as I can and fold the wrappers evenly, so that it looks attractive. Then the butter is put in a good place till wanted. I have a cool private trade and get the best price going and

never hear any complaint of bad butter.

Sells Butter on Market

Mrs. Jennie Beaton, Grey Co., Ont. In the first place all the utensils used for holding cream and butter are thoroughly scalded and then rinsed with cold water before being used. During the hot weather we keep the cream in our cellar which is quite cool. In the winter time we keep it in the pantry which is moderately warm. We have two cans, a small one in which we keep the fresh separated cream until it is quite cool, then we empty it into an eight gallon can, in which we keep the cream until it is ripe enough to churn. We always thoroughly stir the cream with a wooden spoon, after each additional

supply has been put in. When this cream is sour enough and thick enough we get the churn into operation.

We use a barrel churn. We thoroughly scald it and rinse with cold water, then have about a yard of the best cheese cloth, which we are holding in hot water we tie around the top of the churn and strain the cream through into the churn. The churn emitting the gas occasionally, till we see small granules of butter. Then we remove the lid and rinse down the sides of the churn with about a quart of cold water and stir with a few more turns when these granules turn into a compact mass of butter. This time we remove the cork of the churn and add the buttermilk out, through the butter till we get all the milk out of it. We lift the butter into the butter basin and add salt enough to give it the desired taste when well mixed. Then we put the butter away into a cool or warm place, according to atmospheric conditions at the time. We leave it there for four or five hours then mix it again so as to be sure and get all the water out of it. This time we put it in pound prints, we have our name, phone number and process printed on the butter wrappers.

Sometimes we drive right on the market and sell our butter to the highest bidder. We find this way quite satisfactory as we always get the highest price. Very often we have it sold by phone before leaving home. Some of the grocery men or butchers will 'phone up and say "If you bring it to me I will give you a little better than market price".

We have a few private customers. They are very nice, but it doesn't appeal to me, as they only want small lots and their one customer is in the street, the other nearly two or three streets back and one cent more than market price seems to be their limit. As it takes a longer time to dispose of your butter and as you can get cash for the price of your milk every time, unless it is a person who keeps a boarding house and can handle the whole lot.

Good Service From the Paint Brush

ONE of the articles which usually plays a fairly prominent part around the house in the spring, is the paint brush. In these days of rugs, the floors need to be kept in good condition. Of course we are not all fortunate enough to have hardwood floors in our homes. We can nevertheless, keep our floors looking nice with a little care. When using a large rug in the center of the floor, it is only necessary to grain the floor a few feet around the edge. This, if nicely done, looks well in any room.

The kitchen and pantry are splendid places in which to make good use of the paint brush. If the linoleum in the kitchen is varnished spring and fall, it will keep the colors bright and insure its wearing longer. Then there are those pantry shelves. Rather hard to keep them looking neat and clean, isn't it? Some people cover the shelves several times a year with shell paper which does very nicely. Another method is to paint the shelves in the spring with good white paint. An extra nice finish for pantry shelves if one wishes to go to the expense, is enamel. This makes a hard finish which is easily wiped off.

Just one other painting suggestion. A painting task that requires some skill is to do window sashes without getting paint on the windows, and we all know how hard it is to remove all the dry paint from sashes. Here is an idea picked up recently. Cut a piece of cardboard the size of the pane, cover the glass with white paint and thus avoid the vexation of accompanying spots and spatters.

Bishopric Products

Ensure a Better House—More Quickly Built --for less Money



A—LATH B—ASPHALT MASTIC
Section of Bishopric Lath Board AA—Laths. B—Asphalt-Mastic.

The modern way of building, using Bishopric Stucco Board and Lath Board instead of sheathing lumber, metal lath, and lath-and-plaster, saves weeks of time, hundreds of dollars, and makes warmer, dryer, more comfortable and more durable houses.

BISHOPRIC STUCCO BOARD

is the best foundation made for stucco and plaster. Like Bishopric Lath Board (see illustration of section), it is made by heating Asphalt-Mastic till it is a thick liquid, spreading it over sheets of heavy sulphite fibre board, and imbedding in it, under enormous pressure, kiln-dried-laths spaced as they would be on studding. While in the Lath Board the edges of the laths are square, as illustrated, in the Stucco Board they are beveled inward, forming dovetailed spaces between each pair of lath which make perfect keys for the stucco or plaster.

Bishopric Stucco Board is nailed direct to the studding, lath side out, on both exterior and interior walls and ceilings, and the plaster or stucco is then applied to it as shown in the illustration below. The Asphalt-Mastic forms a wind, damp and vermin-proof double skin, enclosing a dead-air space the thickness of the studding—the warmest kind of a wall you can build.

BISHOPRIC LATH BOARD

nailed to the studding with the sulphite fibre-board outward, makes a complete inside finish in itself, taking the place of sheathing lumber, building paper, furring strips, lath and plaster. It costs far less, and can be applied in a fraction of the time, saving 75% of the labor cost. It is particularly useful in remodelling houses and finishing attics, as it saves all the muss and delay of lath and plaster.

Both Stucco and Lath Boards are made in sheets 4 ft. wide and from 4 ft. to 10 ft. long, as desired.

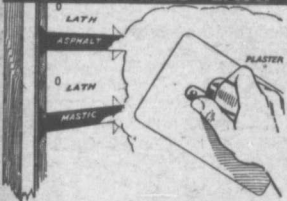
Write us for full particulars and samples of Bishopric Stucco Board and Lath Board, and our illustrated Bishopric Booklet.

The Bishopric Wall Board Co., Ltd.

Office and Factory

550 Bank St. OTTAWA, ONT.

THE DOVETAILED LATH



Applying plaster over Bishopric Stucco Board on interior walls.



Applying Bishopric Lath Board to Ceiling.

Meeting of the Live Stock Records Board

A VERY successful annual meet-
ing of the different breed associa-
tions constituting the Canadian Na-
tional Live Stock Records Board, in
Toronto on May 10. Most of the
breeders' associations were represent-
ed. The statements of receipts and ex-
penditures showed total receipts of
\$28,482.27 and expenditures almost
the same amount.

President Wm. Smith reported a
great increase in the number of regis-
trations during the first four months
of this year, as well as an increase
in 1916 over 1914. The receipts for
the four months ending April 30, 1916,
were \$27,779. This year they have been
\$31,341, or an increase of \$3,562.

A suggestion was received from the
Dominion Sheep Breeders' Associa-
tion, that representatives on the Rec-
ord Committee should be appointed
by the different associations which
they are supposed to represent. This
matter was discussed at length, but
the suggestion was not adopted. It
was pointed out that the Record Com-
mittee is practically an executive
committee of the record board and
that the board has no power to dele-
gate its own work of selecting its
own committee to the breed associa-
tions.

Heretofore it has been the custom
to appoint representatives of the
dairy cattle, beef cattle, light horses,
heavy horses, sheep and swine to act
on the record committee. On motion
it was decided to petition the govern-
ment for permission to change the
constitution of the association to en-
able the association to discontinue
this practice in future and to simply
select the members of the record com-
mittee from members of the board, in-
respective of the classes of stock
they represent. Mr. Wm. Smith, M.P.,
of Columbus, was re-elected chair-
man, and the former members of the
Record Committee were all re-appointed.
They are as follows: Chairman,
Wm. Smith, M.P., Columbus, Ont.;
Peter White, K.C., Toronto, Represent-
ing Heavy Horses; W. F. Stephens,
Huntington, Que., dairy cattle; Rob-
ert Miller, Brantford, Ont., beef cat-
tle; Robert Ness, Howick, Ont., light
horses; J. M. Greenhouse, Weston,
Ont., sheep; J. E. Broadbent, Burford,
Ont., swine; Jno. W. Brant, Ottawa,
Ont., sec-treas.

Tank and Milk House

"A Subscriber"

THE following description and ac-
companying illustrations will, I
think, give a good idea of how
we constructed our round cement
water tank with milkhouse under-
neath.

We dug the trench for the founda-
tion three feet deep. The well is two
feet thick at the bottom of the trench,
tapering to one foot thick at the sur-
face, the diameter at the surface be-
ing 10 feet 4 inches. The concrete was
one to six, with stone added to
make it one to eight. At one point
we dug the trench four feet deep to
allow for a drain under the wall. In
this drain we placed two field tiles,
the upper for the supply pipe, the
lower for the drain. The supply pipe
passes up through a chamber (y, fig. 1)
one foot square with six inch walls
of concrete. This is packed to pre-
vent freezing.

We erected the inside form with
boards, four or five inches wide, eight
feet long, placed on end with wood
circles. For the outside form we used
rings made of 20 gauge iron, 20
inches by 96 inches, bolted together.
We placed strips 10 inches long at in-
tervals of two feet to keep the metal
and wood forms the proper distance
apart. These were removed as we fill-
ed in the cement. The doorway (with
double doors) and two windows were
placed equal distances apart.

We next placed a wood flooring

eight feet four inches in diameter, on
top of the cribbing. On the centre
of it we placed a three-quarter-inch
iron ring, three feet in diameter. On
top of this we placed the bracing sys-
tem (A, 1, fig. 2). This is made of a
hoop of two and one-half inch by
quarter-inch iron, eight feet eight
inches in diameter, and cross rods of

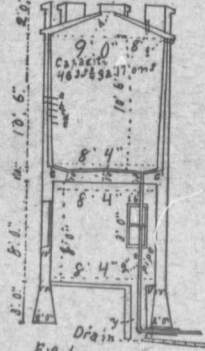
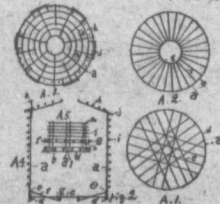


Fig. 1

seven-sixteenths inch soft steel. Seven
inches higher up we placed another
hoop of the same diameter, one and
one-half inches by quarter-inch (A 2,
fig. 2), with three-eighth-inch rods
passing down through the rods of A 1,
fig. 2, and hooked to the three-foot
iron ring underneath. (See e and g,
A 4, fig. 2). At intervals of two feet two
inches, uprights one-eighth-inch by
seven-eighth-inch iron were bolted on
the outside of the two heavy hoops.
Hoops five-sixteenth-inch iron were
wired to these uprights at intervals
of seven inches (A 8, fig. 2).

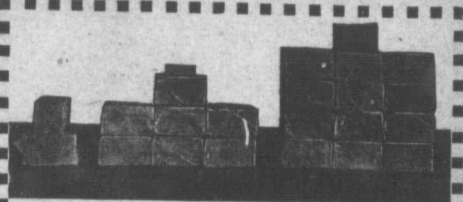
We then filled the concrete floor of
the tank to line c, fig. 1, putting in
supply pipe at same time. We set up
the cribbing and metal rings, outside
diameter 10 feet, making the small six
inches thick at the bottom and five
at the top, concrete one and one-quarter-
inch pipe at top for overflow. After
a few days we took out all the crib-
bing and gave the wall a coat of dis-
tilled tar. Then we set up the crib-



bing on inside, and filled with con-
crete, one to four, one inch thick at
top, four inches at bottom.

We then made a circular wood foot
of inch boards, four inches at outer
end, one inch at inner, leaving a man-
hole at centre (h, fig. 1), one and one-
half feet above level of tank wall. We
added the reinforcing of iron hoops
and rods (A 3, fig. 2), built the wood-
work for ceilings and concreted, one
to five, the whole thing. When we
took down the cribbing we gravel-coat-
ed the inside of the tank, cement one
and two. The capacity is 4,633
gallons.

The total cost for lumber, iron,
hardware, cement, gravel, sawing, man
and cribbing, and hired help, was
\$176. Without the ceilings the cost
would have been \$12 less.



Separator running
at full speed. Loss
of butter 1.75 pounds

Speed reduced 30 revo-
lutions. Loss of butter
7.28 pounds

Speed reduc- ed 20 revo-
lutions. Loss of butter
22.4 pounds

Which pile did you lose?

These figures from the Purdue Experiment Station Bulletin No. 116, show the loss in butter resulting from not turning a fixed-feed separator at exactly the speed stamped on the crank.

And investigations showed that 19 out of every 20 separator operators thruout the country turned their machines too slow much of the time.

THE NEW SHARPLES SUCTION-FEED

is the only separator made which will not lose cream at varying speeds. The wonderful "Suction-feed" always feeds the milk to the bowl in exact proportion to the separating force being generated. At 45 revolutions it skims clean; at 55 it skims clean and at 35 revolutions it skims equally clean. No other separator can do it.

No matter how you turn the New Sharples you always get even thickness cream. Just set the cream screw at the desired thickness and it will come out velvety and even—no matter how you vary the speed. No other separator can do it.

The Sharples Tubular bowl is the simplest and lightest in existence. It has only one plain part in it—no discs to wash and bother with.

All these and many other features explain why the New Sharples is the profitable separator for you to use. It is described in detail in catalog "Velvet" for Dairymen. Send for your copy today. Write Dept. 77.



See how easy he pours into the low supply tank.

The Sharples Separator Co.

Toronto

Canada

THE FARMERS SEEDSMAN

SEEDS FIFTY YEARS SERVICE

1866 1916

We pay railway freight on all orders in Ontario and Quebec over \$25.00. Write for our Complete Price List. YOU WILL FIND SOME BARGAINS HERE.

<p>Ontario Variegated No. 1 25.00</p> <p>Ontario Variegated No. 1, No. 2 for purity 20.00</p> <p>Menasha (Northern)</p> <p>(Green) No. 1 16.00</p> <p>Emma's Grimm, No. 1 15c</p> <p>No. 2, 1b 75c</p> <p>Alberta Grimm, No. 1, 1b 75c</p> <p>North Western Grimm 65c</p> <p>No. 2, 1b 65c</p> <p>Seed Corn (Bags free) 70c</p> <p>1914 or 1915 70c</p> <p>growth per bus. on nob.</p> <p>Crates Bags.</p> <p>Wisconsin No. 7 \$100.00</p> <p>Golden Glow 3.00 3.00</p> <p>Bulley 3.00 1.75</p> <p>Leaming 3.00 1.75</p> <p>White Cap 3.00 1.85</p> <p>Longfellow 2.00 1.95</p> <p>N. Dakota 3.00</p> <p>Compton's 1.90</p> <p>Mangel Seed.</p> <p>Prizetaker, Shidstrup and</p> <p>Leviathan.</p> <p>1 lb. packages, postpaid,</p> <p>at 30c; 1b. express or freight</p> <p>collected, 25c lb. in bulk, if</p> <p>2 lbs. or more ordered of</p> <p>any variety, 20c lb. Same</p> <p>postpaid, 15c lb. Yellow</p> <p>Intermediate, 1 lb. in 10th</p> <p>Long Red, Giant Half Bur-</p> <p>ban, 2c per lb. lower than</p> <p>above prices. White Inter-</p> <p>mediate Carrot, 60c per lb.</p> <p>Ask for complete catalogue.</p>	<p>Grain—Bucks Free.</p> <p>Per bus.</p> <p>O.A.C. No. 72 Oat: Reg-</p> <p>istered \$1.40</p> <p>O.A.C. No. 73 Oat: Reg-</p> <p>istered 85c and 1.00</p> <p>O.A.C. No. 3 Oats, 1.75</p> <p>and 2.00</p> <p>Amer. Banner (Reg.) 1.10</p> <p>(In sealed bags of 2 1/2 bus.)</p> <p>American Banner</p> <p>(Unregistered) 83</p> <p>Siberian Oats 83</p> <p>O.A.C. No. 21 Barley,</p> <p>registered 1.00</p> <p>O.A.C. No. 21 Barley, Un-</p> <p>registered 1.00</p> <p>Marquis Spring Wheat, 1.52</p> <p>Red Fyfe 1.65</p> <p>Golden Vase Peas, 2.15 & 2.40</p> <p>Can. Beauty Peas, 2.15 & 2.40</p> <p>Early Britain Peas 2.15</p> <p>Prussian Blue 2.25</p> <p>Black-Eye Marrowfat 2.50</p> <p>Spring Rye 3.70</p> <p>Rape (Dwarf Essex) 1b. 10c</p> <p>1,000 headed Stalk, 1b. 22c</p> <p>Sorghum, per 100 lbs. 5.00</p> <p>Potatoes, per bag.</p> <p>Bureka, Cobbler, Dele-</p> <p>wars, and Green 2.75</p> <p>Mountains 2.75</p> <p>Early Ohio 3.00</p>
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GEO. KEITH & SONS SEEDS

124 KING ST. E. TORONTO

THROUGH DAY COACH TO NEW YORK LEAVING TORONTO 5:20 P.M. DAILY VIA C.P.R. & N.Y.C. LINES.

Commencing Sunday, May 7th, day coach passengers for New York may board 5:20 p.m. Canadian Pacific train at Toronto, daily, and arrive at "Grand Central Terminal" in the heart of New York City, without change enroute.

Particulars from Canadian Pacific Ticket Agents, or W. B. Howard, District Passenger Agent, Toronto.



HAWK BICYCLES

An up-to-date, High Grade Bicycle with *Four Chain, New Depature or Hercules* wheels, *Grade and Hub, Detachable Tyre*, high grade equipment, including *Head-guards, Pump & Tools* \$22.50 Send FREE 1916 Catalogue, 60 pages of *Bicycles, Sundries and Estate Material*. You can buy your supplies from us at Wholesale Prices.

T. W. BOYD & SON, 37 Notre Dame St. West, Montreal.

GET ALL THE BUTTER FAT



To operate at full efficiency and deliver all the cream, your separator must be lubricated with an oil exactly suited to its construction. Many oils form "gums," thereby clogging the delicate mechanism of the separator, and thus causing irregular spinning of the bowl, reduction of speed and consequent loss of cream.

Standard Hand Separator Oil

is made especially for cream separators by oil experts of years' experience who have studied the detail construction of the separator—this in order to produce an oil exactly adapted to the purpose. Your separator will do better work, last longer and need fewer repairs if lubricated with Standard Hand Separator Oil. No matter what you pay, you cannot buy a better oil for the purpose. Dealers everywhere.

THE IMPERIAL OIL COMPANY
Limited
BRANCHES IN ALL CITIES

Destroy Roadside Weeds

By Burnbraes, Ontario Co., Ont.

With the scarcity of farm help, heatness of the season and bad weather conditions, there no doubt will arise in the minds of many farmers the problem of keeping up with the work this coming season. It is given unto man to accomplish only a certain amount of work. "We will do all we can and let the rest go," is a statement we hear on every side. In some ways this is a wise conclusion under the present circumstances. But we feel there are some things that we cannot afford to let go. One of these is the crop of weeds that annually infest our roadsides.

One of the biggest sinners in the neglect of roadside weeds is the township council. Many of our weeds that are hardest to eradicate are kept alive by being allowed to go to seed, or propagate in other ways on the roadside. A little money expended at the right time by township councils would do much to remedy this evil. It would also help matters if pathmasters would keep back part of the statute labor to be expended in cutting weeds on the highway. The big objection of most councils and pathmasters to this work, is that the condition of the ordinary roadside will not lead itself readily to the cutting process. If the roadsides were level, free from stones, stumps and other unsightly and unnecessary things, the problem of dealing with the weed nuisance would be greatly simplified. A nice appearing roadside also adds many dollars to the selling value of the place, to say nothing of the saving of time and energy expended upon fighting weeds which come in from these neglected places.

The levelling and clearing of roadsides could be quite successfully carried on during the early spring days of each season as these, when nothing can be done on the land and yet some work is needed to harden horses and men for strenuous labor of spring seeding. If the importance of clearing the roadside is realized, the time will be found to do it. It may be necessary to bring pressure to bear on the township council. Is not this a subject worthy of careful consideration?

Horse Notes*

John Gardhouse, York Co., Ont.

TAKE good care of the colt's feet. Don't allow him to run on hot manure or the feet will grow out of shape.

Overloading with fat does not lead to the best development of joints and limbs. Give the colts lots of fresh air and exercise.

I would rather feed a little under than a little over the colt's requirements. I don't believe it possible to give a fixed rule, such as so many pounds of feed per one hundred pounds of live weight, as every colt is a law unto himself.

This winter it will be necessary to give extra attention to feeding hay as much of it is of poor quality. Shake it up well and moisten. The average feeder I believe, gives too much hay.

Hay stencod off is good to keep the bowels in shape.

Rolled oats, bran, a few roots, a medium quantity of well-cured hay, mixed hay or alfalfa, will give good results if fed with moderation.

Rolled oats, 40 per cent; bran, 20 per cent; molasses, 30 per cent and water 10 per cent, all mixed together, is a splendid mixture for colts.

*Extract from an address at the Ontario Provincial Winter Fair at Guelph, December, 1915.

ABSORBINE
TRADE MARK ALWAYS PAY ATTENTION

Removes Bursals Enlargements, Thickens, Swollens, Tissues, Curls, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Always pain. Does not blister, remove the hair or lay up the horse. \$2.00 a bottle, delivered. Book 1 K free.

ABSORBINE, JR., the anti-septic liniment for manking. For Syphilis, Strains, Gout or Rheumatic deposits, Swollen, Painful Varicose Veins. Will tell you more if you write. \$1 and 50c per bottle at dealers or delivered. Manufactured only by W. F. YOUNG, P.O. Box 112, Lyons, N.Y. Montreal, Canada. Absorbine and Absorbine, Jr., are made in Canada.

Cure Your Cows of Caked Udders

WITH
Egyptian Liniment

3 APPLICATIONS GUARANTEED

For Sale Everywhere. Write for FREE Sample.

Douglas & Co., Mfrs. Representatives Ontario

BOOKS

Write for our catalogue of farm books. It is sent free on request. Ask us for information on any books you require.

BOOK DEPT., FARM AND DAIRY
PETROBORO, ONT.

SHIP YOUR BUTTER & EGGS

—to us. We are not commission merchants. We pay net prices and remit promptly.

THE WILLIAM BATES COMPANY LIMITED
PETROBORO, ONT.

Cream Wanted

We have been in the Creamery business twenty years.

Our service to farmers is the very best experience can produce.

We supply cans, both small and large, and do all that any other reliable firm can do—and then some.

Drop a line for particulars to the

Toronto Creamery Co. Limited
Toronto

FOR SALE AND WANT ADVERTISING
THREE CENTS A WORD, CASH WITH ORDER

WANTED—To hear from owner of farm or fruit ranch for sale. O. C. Mattson, Minneapolis, Minn.

ADVERTISE in these popular columns, which others find so profitable—costs you only \$1.50 an inch.

Peck, Kerr & McElderry
Barristers, Solicitors, etc.
415 Water St., Peterborough
E. A. Peck F. D. Kerr V. J. McElderry

A Shortage of Live Stock

SPEAKING at the 11th annual meeting of the Canadian National Live Stock Record Board, held in Toronto, May 10, Dominion Live Stock Commissioner, John Bright, pointed out that there is a national scarcity in Canada of practically all classes of live stock. Mr. Bright urged the breeders' associations to take steps to explain the situation to farmers in order that they may be encouraged to breed more stock. While

the trade in horses has been dull during the past three years, the outlook now is much brighter than over herself. Canada is shortly going to find itself deplorably short of horses; 20,000 have been sent to the war, some 6,000 to the west and thousands to the States. The price on all grades of horses has advanced more rapidly during the last couple of months than possibly ever before. There is a possibility that farmers, not realizing this position, may breed fewer mares this year than they otherwise would.

The beef cattle situation is much the same. Too many farmers have been depending on others to breed their feeders and now many of them are handling inferior feeders for which they have had to pay unduly high prices. The time has come when it will pay them to go back and breed their own feeders. The cattle we have been producing have lacked in breeding and flesh. Better bulls must be secured. Sheep are equally scarce. While it is not likely that the price of wool will continue for any great

length of time at its present high level, still it will be a long time before wool will be as cheap as it has been during the last 20 years. The price being paid for lambs is such as to make sheep raising very profitable. As regards the hog situation, the supply has not been nearly equal to the demand; 367,000 hogs having been imported from the States during the past four months. Even were the price of hogs considerably lower than it is there would still be an excellent profit from hog raising.



PAGE FENCE

— THE UNRIVALLED —

at prices made possible by our "Direct--to--You" Selling Plan

Even if it cost more, Page Fence would still be a good investment, because of its proven superiority. But by selling direct from factory to farm, we enable you to secure it at prices the lowest that anyone can quote you even for ordinary fence.

For years, regarded as the standard, this is the fence that has won the farmer's confidence by its steady adherence to high quality and full-gauge—we have steadfastly refused to cheapen it by cutting down weight to meet competition. The result is an unbroken chain of satisfied customers—any one of whom will advise you to get this proven fence, rather than take chances with any lesser make.

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

No. of bars.	Height	Stays in. apart.	Spacing of Horizontals.	Price in West. Ont.
6	40	22	6½-7-8½-9-9	29½
7	40	22	5½-7-7½-8	34
7	48	22	6-6½-7½-9-10-10	38
8	42	16½	6-6-6-6-6-6	41
8	47	22	4-5-5½-7-8½-9-9	40
8	47	16½	4-5-5½-7-8½-9-9	42½
9	48	22	6-6-6-6-6-6-6	43
9	48	16½	6-6-6-6-6-6-6	46
9	53	22	4-4-6-6½-7-8½-9-9	43
9	52	16½	4-4-6-6½-7-8½-9-9	46
10	48	16½	3-3-4-4½-7-7½-8	49
10	48	12	3-3-4-4½-7-7½-8	54
10	53	16½	3-3-4-4½-7-8½-9-9	49
11	55	16½	3-3-3-4-4½-7-8½-9-9	54

New Ontario Prices on Request.

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

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

The Page Wire Fence Company

1138 King Street West, Toronto.

Factory at Walkerville.

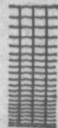
PAGE GATES



match Page fence in dependability

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

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



Page Poultry Fence

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

20 bar—60 inch—6½c per rod.
18 bar—48 inch—5½c per rod.
(Uprights 8 inches apart).

PAGE LAWN FENCE FOR PROPERTY PROTECTION

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

various prices. The one here shown is quoted as follows:—

We have it in various neat designs, at

Height.	Painted.	Not Painted.
12 in.	6c	
18 in.	7c	
30 in.	8c	8c
36 in.	10½c	9c
42 in.	12c	10c
48 in.	13c	11c



Market Review and Forecast

TORONTO, May 18.—A falling off of 150,000,000 bushels in the fall wheat crop of the United States, as compared with the estimate made this time last year, is forecasted by the U. S. Crop Report. This, together with reports of further deterioration of the wheat crop of the south, has led to a tendency to strengthen the market. Reports from the West indicate that seeding has been further advanced in Southern Alberta and Western Saskatchewan, although there are indications that seeding has been further delayed by unfavorable weather conditions in Manitoba and Eastern Saskatchewan. In Ontario the fall wheat came through well and promises a good yield, but it is not of sufficient importance to affect the market. Partial consensus was given by Germany to the United States' proposal, regarding the sinking of merchantmen, also had a strengthening effect on the market.

Interesting figures are given by Live

Stock Commissioner Bright regarding the supply of live stock in the Dominion: 6,000 horses have been taken out of the Dominion since the war started, and 5,000 manure have been purchased by Western Farmers in Eastern Canada. Since January first, 367,000 hogs had been imported from the United States. Heavy importations of beef cattle and sheep have also been made from the United States. These indicate that Canada is free to face with a serious shortage of live stock, which would result in the maintenance of high prices here. They also indicate that renewed interest and energy should be devoted to live stock breeding.

WHEAT. Market quotations show an all-round increase of from two to two and one-half cents per bushel in wheat. The market was quiet with available supplies tightly held. Quotations at P. Wilsam are as follows: No. 1 Northern, \$1.27½; No. 2,

\$1.25½; No. 2, \$1.22½; Ontario wheat is quoted here as follows: No. 2 (not quoted); No. 1 commercial, \$1.04 to \$1.05; No. 2, \$1.02 to \$1.03; No. 3, \$0.98 to \$1.01; feed wheat, \$0.90 to \$0.92.

GRAIN. Corn quotations showed a slight falling off from the advance reported two weeks ago and maintained by last week's report. The following are the cash quotations: Ontario No. 2 white, 62c; No. 3, 61c; No. 1 extra feed, 61c; No. 1 feed, 60c; Ontario No. 2 white, 61c to 62c; No. 3, 60c; No. 1 extra feed, 60c; No. 1 feed, 59c; No. 2, 58c; No. 3, 57c; No. 4, 56c; No. 5, 55c; No. 6, 54c; No. 7, 53c; No. 8, 52c; No. 9, 51c; No. 10, 50c; No. 11, 49c; No. 12, 48c; No. 13, 47c; No. 14, 46c; No. 15, 45c; No. 16, 44c; No. 17, 43c; No. 18, 42c; No. 19, 41c; No. 20, 40c; No. 21, 39c; No. 22, 38c; No. 23, 37c; No. 24, 36c; No. 25, 35c; No. 26, 34c; No. 27, 33c; No. 28, 32c; No. 29, 31c; No. 30, 30c; No. 31, 29c; No. 32, 28c; No. 33, 27c; No. 34, 26c; No. 35, 25c; No. 36, 24c; No. 37, 23c; No. 38, 22c; No. 39, 21c; No. 40, 20c; No. 41, 19c; No. 42, 18c; No. 43, 17c; No. 44, 16c; No. 45, 15c; No. 46, 14c; No. 47, 13c; No. 48, 12c; No. 49, 11c; No. 50, 10c; No. 51, 9c; No. 52, 8c; No. 53, 7c; No. 54, 6c; No. 55, 5c; No. 56, 4c; No. 57, 3c; No. 58, 2c; No. 59, 1c; No. 60, 0c; No. 61, 0c; No. 62, 0c; No. 63, 0c; No. 64, 0c; No. 65, 0c; No. 66, 0c; No. 67, 0c; No. 68, 0c; No. 69, 0c; No. 70, 0c; No. 71, 0c; No. 72, 0c; No. 73, 0c; No. 74, 0c; No. 75, 0c; No. 76, 0c; No. 77, 0c; No. 78, 0c; No. 79, 0c; No. 80, 0c; No. 81, 0c; No. 82, 0c; No. 83, 0c; No. 84, 0c; No. 85, 0c; No. 86, 0c; No. 87, 0c; No. 88, 0c; No. 89, 0c; No. 90, 0c; No. 91, 0c; No. 92, 0c; No. 93, 0c; No. 94, 0c; No. 95, 0c; No. 96, 0c; No. 97, 0c; No. 98, 0c; No. 99, 0c; No. 100, 0c.

MILL FEEDS. About the same level as reported last week. Most lines are up from the previous week. During the week sales were made at the following quotations: Bran, 23½; shorts, 22½; middlings, 22; No. 1, 21½; No. 2, 21; No. 3, 20½; No. 4, 20; No. 5, 19½; No. 6, 19; No. 7, 18½; No. 8, 18; No. 9, 17½; No. 10, 17; No. 11, 16½; No. 12, 16; No. 13, 15½; No. 14, 15; No. 15, 14½; No. 16, 14; No. 17, 13½; No. 18, 13; No. 19, 12½; No. 20, 12; No. 21, 11½; No. 22, 11; No. 23, 10½; No. 24, 10; No. 25, 9½; No. 26, 9; No. 27, 8½; No. 28, 8; No. 29, 7½; No. 30, 7; No. 31, 6½; No. 32, 6; No. 33, 5½; No. 34, 5; No. 35, 4½; No. 36, 4; No. 37, 3½; No. 38, 3; No. 39, 2½; No. 40, 2; No. 41, 1½; No. 42, 1; No. 43, ½; No. 44, 0; No. 45, 0; No. 46, 0; No. 47, 0; No. 48, 0; No. 49, 0; No. 50, 0; No. 51, 0; No. 52, 0; No. 53, 0; No. 54, 0; No. 55, 0; No. 56, 0; No. 57, 0; No. 58, 0; No. 59, 0; No. 60, 0; No. 61, 0; No. 62, 0; No. 63, 0; No. 64, 0; No. 65, 0; No. 66, 0; No. 67, 0; No. 68, 0; No. 69, 0; No. 70, 0; No. 71, 0; No. 72, 0; No. 73, 0; No. 74, 0; No. 75, 0; No. 76, 0; No. 77, 0; No. 78, 0; No. 79, 0; No. 80, 0; No. 81, 0; No. 82, 0; No. 83, 0; No. 84, 0; No. 85, 0; No. 86, 0; No. 87, 0; No. 88, 0; No. 89, 0; No. 90, 0; No. 91, 0; No. 92, 0; No. 93, 0; No. 94, 0; No. 95, 0; No. 96, 0; No. 97, 0; No. 98, 0; No. 99, 0; No. 100, 0.

HAY AND STRAW. Local inquiries have been buying baled hay, best grade, on truck here at \$22 to \$24; low grade, \$18 to \$20; baled straw, \$7 to \$8. Monday's quotations on hay in car lots, \$20 to \$22.

POTATOES AND BEANS. There is a considerable falling off in the price of potatoes, compared with the quotations of last week. Ontario brought \$1.60 to \$1.70 a bag, out of store; Delaware, \$1.30 to \$1.40; in car, per 100 lb. lots.

EGGS AND POULTRY. Special quotations for fresh new laid eggs were quoted at 2c to 2½c; new laid, candied (ex-cartons), 18c to 24c. Poultry—Live. Dressed Spring broilers (1½ lbs. and over), .45c to .50c; 5½c to 65c; Old fowl, pound, .15c to .20c; 22c to 24c; Chickens, .15c to .20c; 25c to 27c; Milk-fed, .15c to .20c; 25c to 27c.

SEEDS. Wholesalers are selling to the country trade: No. 1 red clover, cwt., .225 00 to .237 50; No. 2 do, .23 00 to .25 00; No. 3 do, .23 00 to .25 00; No. 1 alfalfa, cwt., .25 00 to .28 00; No. 2 do, .25 00 to .28 00; No. 3 do, .25 00 to .28 00; No. 1 timothy, cwt., .12 00 to .14 00; No. 2 do, .12 00 to .14 00; No. 3 do, .12 00 to .14 00.

DAIRY PRODUCTS. There is a similarity of cheese prices at the commencement of the present season compared with those of last year, when prices started high and advanced to 1914 by the 21st of April. The market is ready this year. If weather is favorable, the prospect is that the make in Canada will be even larger than that of last year. There is difference of opinion as to whether or not last year's high prices will be maintained. A prospective short make in England and curtailment of the supply of ocean freight, are expected to increase prices. On the other hand, it is expected that the exports from the United States will be largely increased. This, together with an increased surplus in Canada, undoubtedly will have a depressing effect.

The decline in the price of butter during the last few weeks is due principally to the large stocks of held goods. Indications are that bottom prices have been reached. Should the price of cheese continue, a portion of the milk of the United States will be sent to the butter and cheese factories, the result being a low price for butter prices.

Butter. Creamery prints, fresh made 25c to 27c; Creamery solids, storage, .28c to .30c; Creamery dairy prints, .28c to .30c; Ordinary dairy prints, .24c to .26c; Bakers, .25c to .27c; Cheese—New, large, 19½c to 19c; twine, 19c to 20c; old, June and September, large, 20½c; twine, 20c; triple, 21c.

LIVE STOCK. Trade continues strong, packers taking all offerings at prices steady with the advanced levels of the beginning of the week. From Chicago comes the report that a new record price for May was set on Wednesday, when Armour & Company paid \$10.25 for a carload of Angus yearlings. It is from this producer that one cattle may bring \$12 within a few weeks. Butcher's cows and bulls were in strong demand and firm price level. Quotations are about as follows:

Heavy choice steers, \$8.90 to \$9.25; Handy choice steers, \$8.60 to \$8.90; Butcher's good, \$8.20 to \$8.50; do medium, \$7.90 to \$8.20; do common, \$7.50 to \$7.80; Butcher's cows, choice, \$6.75 to \$7.00; do good, \$6.25 to \$6.50; do medium, \$5.75 to \$6.00; do common, \$5.25 to \$5.50.

This Book will be worth \$1,000 to many people.

You can have a copy free. If it becomes worth \$1,000 to you, we shall be more than repaid by sending it. It tells about Profits from Savings.

It shows the folly of squandering money or keeping money idle. It's a book that has started many people on the road to owning sound, interesting investments.

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What is your object in farming? Is it to work out fine-guns theories or to make your farm a business success? If it is to make a business success you will need some farm book or books. WARREN'S FARM MANAGEMENT is the first book you secure.

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how to choose a farm, what size of a farm is most profitable, how to start farming with the least capital, how to equip and lay out a farm, how to keep farm accounts, so as to know where you are making money and where you are losing it? Then send us two new subscribers to "Farm and Dairy" at \$1.00 each and this book will be sent to you free of charge. If you have any of these questions and many more.

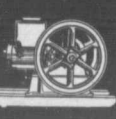
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Write to day for our illustrated booklet and ask for a copy of this man's letter.

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HAMILTON, CANADA

PROOF.

Mr. W. M. BALD, Mitchell, Ont., sends in an account of his sale recently held. He states that he advertised in Farm and Dairy, and his sale of stock and implements on 100 acres amounted to \$2,545.58. Did it pay him? He thinks so. It will pay you as well.

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ADVERTISE in these popular columns, which others find profitable—costs you only \$1.65 on inch.

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Advertising Department, FARM & DAIRY, Peterboro, Ontario

When You Write---Mention Farm and Dairy

Butchers' bulls, choice . . . 7 25 to 8 00
 do good 6 00 to 7 25
 do bologna 6 25 to 6 00
 Fowls, 100 to 1,000 lbs. . . . 7 to 8 00
 do bulls 5 00 to 6 00
 Stockers, choice, 800 to 7 25 to 8 00
 900 lbs. 6 00 to 7 25
 do good, 100 to 800 lbs. . . . 6 00 to 7 25
 do medium, 450 to 700
 do 6 00 to 6 50
 do common, light 5 50 to 6 00
 Cutters 4 75 to 5 25
 Canners 4 00 to 4 75
 Milkens were not out in sufficient numbers to fill the demand. From 860 to 1110 was paid. Orders are on hand from Eastern sources. Quotations follow: Milkens, choice, 475 to 1100; good, 380 to 475; springers, 300 to 410. Bloodlines of calves were fairly large and found ready sale at steady farm rates of \$7 to \$10.25, with odd choice veals as high as \$11.
 Steers and heifers found a strong market and were taken at \$5 to \$10.50 for ewers; \$10.50 to \$13.00 for yearlings, and \$6 to \$12 each for spring heifers. Good spring heifers were wanted and were fairly held.
 Hogs washed offcars were quoted at \$11.50 to \$11.75; fed and watered, \$11.25 to \$11.50; fock country points, \$11 to \$11.15; heavy and light, \$10 less; sows, \$12.50 less.

CHEESE BOARD QUOTATIONS.
 Alexandria, May 11.—At the Cheese Board held on May 11, 253 boxes were offered; all sold at 13 9-16c.
 Kingston, May 11.—At the Frontenac Cheese Board held to-day, 263 white and 379 colored cheese were boarded; 175 white sold at 13 7-16c, and 168 colored and 23 white sold at 13 3-8c.
 Brockville, May 11.—Offerings, 5,000 boxes white; rullers, 134c to 13 1/2c; board offerings, 2,880. Sales on board, 90 white at 13 1/2c, 80 colored at 13 1/2c.

FARMERS' CLUB
 Correspondence Invited.

QUEBEC.
SHERBROOKE COUNTY, QUE.
LENNOXVILLE, May 2.—The sugar season, just over, has brought a bountiful yield. The quality was good and the price realized was high. The seedling season is opening most favorably. The average under crop will probably not be quite so large as last year, but everywhere there is evidence of better methods and more thorough cultivation. The outlook is good for a successful year.—H. MacP.

ONTARIO
MIDDLESEX COUNTY, ONT.
APPIN, May 6.—Seedling is being very much delayed by wet weather, a very small acreage as yet being over sired. The rains have been so continued that the very little plowing has been done for corn, and the remainder of the month, even if all fine, will be a rush season. Cattle are nearly all in stable yet, though some lots are out on pasture, which is coming slowly. Farmers are in hope nature will repeat her past bounty in raised growth when it does come.—C. M. M.

WELLAND COUNTY, ONT.
BRILLINGDALE, May 4.—We are having very wet weather here now and not much is being done on the land. Grains and clover look fine. Potatoes are being brought from New Brunswick and sold for \$1.50 a bush. Apples are \$1 a bush; chickens, 25c a lb.; pork, 10 1/2c; dressed mutton, 20c to 22c; butter 22c to 24c; maple syrup, 11 1/2c a gallon.—J. W. C.

OXFORD CO., ONT.
WOODSTOCK, May 10.—Very little seedling done in this section so far, and work is done on the land, as we have had a very heavy rain all day with much wind. A great many have not started yet. The ground is very soft. A great deal of the land is well distributed. A great deal of corn is being planted. Very few acres are running full. Farm a number of the farmers have sold their corn, as account the scarcity of ship. Milk cows are selling very high yet. Hogs are \$11 to-day, a top of 25c since last week.—A. M. McD.

BRITISH COLUMBIA.
NEW WESTMINSTER DISTRICT, B.C.
CHILLWACK, April 29.—The weather still remains cloudy and chilly, with frequent rains and westerly winds. Little or no grain has yet been sown. Cattle has advanced to 10 1/2c a lb. live weight. This is the highest price that has ever been known here. Beef still very cheap, 5c a lb. on foot.—N. E. C.

NEW WESTMINSTER DISTRICT, B.C.
CHILLWACK, May 2.—Quite a lot of seedling has been done in this district. Another week will find it. Farm and Dairy's special agent from Peterboro is crossing this district for new subscribers to the paper. Cattle and all live work horses being sold in the stables. Hay is selling fast at \$10. Bran and shorts are \$23 and \$25, respectively, at the car at Rosedale. Potatoes are selling at \$11 a ton at present. The majority of them are being inspected and shipped to the States.—N. E. C.

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"MOST ENVIRED TIRE IN ALL AMERICA"

Most Durability in Service
 Most Immunity from Rim-Cuts
 Most Reliability in Danger
 Most Absence of Dust
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 Most Inches of Air-Capacity

These are some of the reasons for calling **DUNLOP TRACTION TREAD "MOST ENVIRED TIRE IN ALL AMERICA."**

AT. 111

A Binder is a Big Investment

The man who buys one without investigating the Frost & Wood is throwing away the 25 years of fruitful experience we have had in making Binders, and seeing them used for all kinds of crops in every part of the world.

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Building Binders has always been our special study. We watch our machines at work more critically than any individual owner, and we are satisfied that for sure sifting, sun elevating, stry turing, light draft and fast work the Frost & Wood Binder cannot be equalled.

LIGHT-DRAFT-EASY WORK.
 The Frost & Wood Binder is built of high-carbon steel, displacing heavy cumbersome castings and wood. It can stand a drop into a hollow, it can stand work in the roughest land, it will handle any crop you ever saw with ease. It has a big margin of strength, yet it is the lightest in draft on the market, due to our extensive use of finest roller bearings, expensive for us to give but mighty good for you to have. No pulling or straining to work the handily-placed levers, either, we place strong springs to do the work for you.

FORCE FEED ELEVATORS.
 The old bugar, choked grain, is entirely done away with. Frost & Wood elevation is positive—the grain must pass, no matter how tangled it is. A special Relief Roller, always revolving, passes the straw from elevator to packers and "keeps things moving."

RELIABLE BINDING ATTACHMENT.
 Can be adjusted to give you large or small bundles exactly as you wish. The whole machine is built to suit any harvesting condition. The Knottter is a wonder of simplicity and sureness. Hundreds of letters from satisfied users always comment on the splendid F. & W. Knottter. Many F. & W. Binders have been in use 15 and 20 years and are in excellent shape to-day.

Put time and thought into buying your Binder. Write us today for our special Frost & Wood Binder Book.

THE FROST & WOOD CO., Limited MONTREAL SMITH'S FALLS ST. JOHN
 Sold in Western Ontario and Western Canada by
The Cockshutt Plow Co., Limited, Brantford, Ont.

1. CANTON HICKORY, 1897, 4y. 11m. 264; 41.2 lbs. milk, 17.19 lbs. fat, 32.59 lbs. butter. Chester C. Lee, Keweenaw.

4. CHERRY BROOK FAVORITE, 4y. 11m. 184; 45.3 lbs. milk, 16.48 lbs. fat, 31.10 lbs. butter. H. G. JACOBY, Ingersoll. Jr. Four-Year Class, Over 20 lbs. 1. Daisy Mottle Beauty, 1840, 4y. 5m. 84; 40.7 lbs. milk, 17.17 lbs. fat, 30.59 lbs. butter. Wm. H. Gough.

3y. Three-Year Class. 1. MINDA, 1842, 3y. 11m. 241; 44.3 lbs. milk, 11.46 lbs. fat, 28.84 lbs. butter. Peter Smith, Stratford. 2. EMERY LILY POSEY, 2163, 3y. 11m. 181; 48.1 lbs. milk, 19.32 lbs. fat, 24.10 lbs. butter. Wm. Sharkey, Weston. 3. CANTONIA SYLVIA, 2013, 3y. 11m. 124; 57.3 lbs. milk, 18.48 lbs. fat, 27.12 lbs. butter. W. C. STEVENS, Philadelphia. 4. Vida Princess Marstar, 2240, 3y. 11m. 141; 41.8 lbs. milk, 15.25 lbs. fat, 26.24 lbs. butter. W. C. STEVENS, Philadelphia.

3y. Three-Year Class, Over 18 lbs. 1. PULVER VERBENA MAY, 2561, 3y. 11m. 254; 47.7 lbs. milk, 19.29 lbs. fat, 24.11 lbs. butter. E. J. HANBY, Villa Nova. 2. Madeline Dolly DeKol, 2709, 3y. 11m. 284; 48.2 lbs. milk, 16.23 lbs. fat, 20.43 lbs. butter. Wm. Sharkey, Weston. 3. Leona Korndyke, 2324, 3y. 11m. 284; 49.3 lbs. milk, 15.78 lbs. fat, 22.51 lbs. butter. W. C. STEVENS, Philadelphia.

3y. Two-Year Class, Over 20 lbs. 1. KORNADYK SIGMA HARTON, 2927, 3y. 11m. 121; 48.1 lbs. milk, 16.48 lbs. fat, 25.09 lbs. butter. Benj. J. Leavens, Hammond. 2. Lucia Marceus Poesh, 2765, 3y. 11m. 164; 50.6 lbs. milk, 18.39 lbs. fat, 23.66 lbs. butter. 3y. 10-day record; 3y. 11m. 184; 52.24 lbs. milk, 25.68 lbs. fat, 27.83 lbs. butter. 3y. 11m. 184; 53.1 lbs. milk, 17.79 lbs. fat, 22.17 lbs. butter. L. E. HANBY.

3y. 11m. 241; 44.3 lbs. milk, 16.48 lbs. fat, 25.09 lbs. butter. Benj. J. Leavens, Hammond. 11-day record; 3y. 11m. 241; 45.0 lbs. milk, 16.48 lbs. fat, 25.09 lbs. butter. W. C. STEVENS, Philadelphia. 12. Riverdale Belle, 2927, 3y. 11m. 184; 52.3 lbs. milk, 16.09 lbs. fat, 23.19 lbs. butter. 13. 10-day record; 3y. 10m. 194; 73.9 lbs. milk, 31.26 lbs. fat, 41.70 lbs. butter. J. W. TROBARDON, Chalmers. 14. Aileen M. Poesh, 2593, 3y. 10m. 244; 56.7 lbs. milk, 16.02 lbs. fat, 20.94 lbs. butter. 15. 14-day record; 3y. 10m. 244; 59.4 lbs. milk, 27.1 lbs. fat, 35.30 lbs. butter. J. B. HANZER, Norwich.

Jr. Two-Year Class, Over 18 lbs. 1. Riverdale Lyons Beauty, 2973, 2y. 11m. 181; 56.4 lbs. milk, 16.49 lbs. fat, 24.11 lbs. butter. Wm. H. Gough, Keweenaw. 2. Princess Chermosa Gold, 2914, 2y. 11m. 181; 57.6 lbs. milk, 16.07 lbs. fat, 23.89 lbs. butter. Ashton Somers, Villa Nova. 3. May Ormsby FAVORIT, 3297, 2y. 11m. 284; 77.4 lbs. milk, 15.29 lbs. fat, 18.13 lbs. butter. W. B. POOSH, Ingersoll.

During the last half of April the records of 1st cows and heifers were received and accepted for entry in the Record of Merit. Princess Sylvia (DeKol DeK.) the leader in the mature class, is a new addition to the 30-lb. list as well as to the list of cows giving 100 lbs. of milk in a day. She made 80.04 lbs. butter from 64.4 lbs. milk. Four other cows, Marion DeKol, Fernan Hemmervold DeKol 3rd, Rowback's Beauty and John Joyce, made 75 lbs. butter in seven days. In the Jr. four-year-olds with 20 lbs. the leader, Daisy Mottle Beauty, tops the Jr. four-year-olds with 30.89 lbs. butter. Finland White is best of three-year-olds with 26.84 lbs. while Pulverit Verbeha May comes first among the juniors with 24.11 lbs. The leading Jr. two-year-old is Kornadyk Sigma Harton, with 25.50 lbs. milk, while the best junior is Hemmervold Belle, with 25.09 lbs. milk. W. A. CLEMONS, Secretary.

DISPERSION SALE

SEMI-OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS FROM MARCH 25 TO APRIL 25, 1914.



AT EMERY, MAY 31st, 1916 A FEW OF OUR CHOICE ONES

JEWEL CORNELIA POSCH—7 yrs. old. 7-day record, 23.48 lbs. butter; R.O.P. record, 22.93 lbs. milk. Bred to Lakewiew Hemmervold Sylvia. Due to freshen June, 1916. She is a very large cow of wonderful constitution and large capacity; a beautifully balanced udder.

EMERY CALAMITY PRINCESS—A cow of big capacity for food and milk, who as a 3-yr.-old made a record of 19.11 lbs. butter in 7 days after giving birth to twin calves. She will be tested again before the sale.

EMERY LILY POSCH—A cow with good mammary development, very long and crooked teats, and large well balanced udder; also good constitution and vigor. She has a record in R.O.M. of 24.15 lbs. and R.O.P. record of 14.96 lbs. milk and 64.25 lbs. butter, with average test of 3.51 per cent.

EMERY CALAMITY POSCH—A 3-yr.-old, who as a two-year-old made a record of 12.24 lbs. She is a nice smooth cow, in splendid condition, that will make a good record when she freshens May 20, 1916.

Wm. Sharkey, R.R.2. Weston, Ont. J. K. McKewen, Auctioneer

LAKEVIEW STOCK FARM, BRONTE, ONT. Breeder of high-order, for sale Choice Young Bulls of various ages, all sons of Grand-son of later, latest Cal. Champs, 30 dy. butter cow, 4 mos. after calving, and is a half-bro. to L. Dutch, Art. Cal. Champ, 3 yr. old butter cow (34.66 lbs. butter in 7 days). Terms to suit purchaser. E. F. OSLER, Proprietor. T. A. DAWSON, Manager.

18 HOLSTEIN BULLS. Grandsons of "King Segia Pontiac," "Rag Apple Korndyke 8th," and others. Dams have milked from 100 lbs. a day and down. Aged from 18 months to a few days. Write us to-day if you want a bull. R. M. HOLBY R. R. No. 4 PORT PERRY, ONT.

2 CRESCENT RIDGE SIRES 1.—Sired by Correct Change and out of a dam that has milked nearly 14,000 lbs. per year, averaged 61.5 lbs. butter, and produced a calf every year. 2.—Out of one of our choicest 3 yr. olds, Johanna Fairmont Hengervold, with 37.75 lbs. at 2 yrs. His sire is the great Correct Change. JACOB LEWLER & SON, R. R. 1, BRIGHT, ONT.

KORNGOLD STOCK AND DAIRY FARM Improved English Yorkshire either sex, all ages. Choice young sons of breeding age. F. J. McCALPIN, Korngold Stock Farm, GANANIQUE, ONT.

FOR SERVICE This 40 lb. Bull MAY ECHO CHAMPION

The only bull in Canada, United States or elsewhere who has a full sister with a record of 41 lbs. butter and 1005 lbs. milk in 7 days. The only bull that can transmit 50 per cent. of the same blood as the cow who made this record. The only bull that has two full sisters with an average record of 35 lbs. butter and over 850 lbs. milk in 7 days. This bull is ready for service to a few good cows. Breed to him to get your future sire. R. F. Hicks - Newtonbrook, Ont

HOMESTEAD HOLSTEIN STOCK FARM offers very reasonable for quick sale eight choice, well-bred heifers. Four are daughters of Judge Hemmervold DeKol 5th, Imp., whose dam has a record of 51.22 lbs. butter. R. R. NO. 1 HARRIETSVILLE STN., C.P.R. MOSSLEY, ONT.

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Records show that birds and animals which are regularly infected with Zenoform, not one single case of disease has appeared. This great Coal Tar Disinfectant is SAFE, RELIABLE and non-toxic. Kills lice, mites and fleas. Used as a spray inside Hous, Barns, and Stables. Fugitive, Poultry House. PREVENTS DISEASE. Dominion Experimental Farm at Ottawa; G. G. Gush, and by 50 Agents in every part of Canada and United States. No danger of fire or poison. Ask your dealer for 25¢ sample of Zenoform when you request a reliable, safe, powerful and economical Disinfectant. Write for Booklet. Your dealer can supply Zenoform. 41-90 gal. cans. 50¢ each. Sample, 25¢. ZENNER DISINFECTANT CO., WINDSOR, ONT.

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—bottom price

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Model 75—f.o.b. Toronto

This car is the result of a definite purpose to supply a definite need with definite finality.

It is built for the man whose purse cannot afford a big expensive car—

For the man whose pride cannot afford an unsightly, little, uncomfortable car—

And it is a very definite success.

Beauty is not necessarily a matter of size.

Neither does size altogether control comfort.

But skill, experience and facilities are required to build a small, beautiful, comfortable, economical car.

In a word, this car required Overland organization.

And here is the small, light car—complete to the last detail.

Its performance is on a par with its beauty, comfort and completeness.

And its price—\$850—is far below any former price for any completely equipped automobile—regardless of appearance or comfort considerations.

A glance at the car impresses you immediately with its beauty and finish.

As you look it over and read its specifications, you realize its absolute completeness.

But you must ride in it to appreciate its comfort.

You must drive it to get the thrill its performance will give you.

You can own one of these cars.

But act promptly—for no car was ever in such demand.

In spite of record productions and advancing prices, there is a shortage of cars.

The demand naturally centres on top class at bottom price—this small light car.

And no other car at anywhere near its price can compare with this one for beauty, performance, comfort, completeness and economy.

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