

Issued Each Week Only One Dollar a Year

VOL. XXX.

NUMBER 34.

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

AUGUST 24

1911.



QUEBEC PROVINCE AGAIN HAS AN ABUNDANT CROP

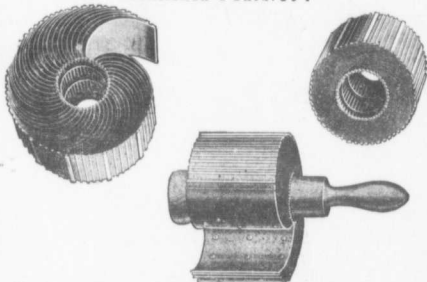
Again nature has wonderfully blest our fair land with bounteous crops. The harvest in Ontario has been a little short of a fair average, but since Ontario farmers depend not upon some one special crop, all will be well. Quebec is completing the work of harvesting a bumper crop. In the Maritime Provinces crops are a fair average, and in the great Western Provinces the harvesters are at work garnering the greatest crop in the history of that country. Truly we have much to be thankful for in this land of plenty. Our illustration shows a crop on Mr. Arthur Dennison's farm, Richmond Co., P. Q.

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Cooperative Experiments With Winter Crops, 1911

Material for any one of the six experiments here mentioned will be sent free to any Ontario farmer applying for it, if he will conduct an experiment with great care and report the results after harvest next year. The seed will be sent out in the order in which applications are received as long as the supply lasts. 1. Testing three leading varieties of winter wheat, 3 plots. 2. Testing two leading varieties of winter rye, 2 plots. 3. Testing five fertilizers with winter wheat, 6 plots. 4. Testing autumn and spring applications of nitrate of soda and common salt with winter wheat, 5 plots. 5. Testing winter ommer and winter barley, 2 plots. 6. Testing hairy vetches and winter rye as fodder crops, 2 plots.

The exact size of each plot is to be one rod wide by two rods long. The material for Experiments Nos. 1, 2, 5, and 6 will be forwarded by mail, and for each of the other two by express. Each person wishing to conduct one of these experiments should apply as soon as possible, mentioning which test he desires, and the material with instructions for testing and the blank form on which to report, will be furnished free of cost until the supply of experimental material is exhausted.

—C. A. Zavitz, Agricultural College, Guelph, Ont.

Figures About Our Trade

Our imports (purchases) last year (1910) from the entire world amounted to \$391,925,652; and out of that we purchased no less than \$239,070,549 (almost two-thirds of it) from the United States. Thus, it appears that, notwithstanding the high tariff walls and other embargoes erected to prevent it, we climbed up over those walls, and these high and sturdy and actual purchased \$239,000,000 out of \$391,000,000 worth of the goods we required to purchase from countries outside of Canada. That manifests in the most positive and only conclusive manner where we purchase our foreign requirements in spite of all obstructions and where our best purchasing market is. People don't purchase where it does not pay to do so.

Now let us see where we sell our surplus products. The same year (1910) our exports to the entire world amounted to \$391,568,529, and out of that sum we exported (sold) no less than \$113,150,778 (nearly one-third) to the United States, also in face of the high tariff walls and other obstructions against it. That indicates beyond all cavil, where we sell our surplus products. Again, I say that people don't sell in one market if they can do better in another.

The foregoing from J. P. Secord, of Ottawa, Ont., points out clearly that trade in the past has not followed the flag and economic conditions alone determined where we buy and sell.

Dairy Information at Fall Fairs

Editor, Farm and Dairy.—In view of the many enquiries last year the Dairy Commissioner has arranged for a representative of the Dairy Division to be at the Toronto Exhibition again this year, to give information regarding cow testing to dairy farmers and factory proprietors. Assistance will be given both to the individual dairymen and to any maker who wishes to organize a cow-testing association. Any one desirous of constructing a cool curing room for cheese, or building a cheese factory or creamery will be able to obtain useful suggestions from the plans displayed at the booth in the Dairy Building. Officials of the Dairy Division will also conduct dairy tests, or milking competitions, at the fall fairs to be held at Woodstock and Perth, Ont., Brome and Sherbrooke, Que. Awards

will be based on the weight of milk butter fat and solids not fat produced.—C. F. Whitley, Dairy Division, Ottawa.

Sores on Horses

When sores occur, seek the cause, correct it, then aid nature in effecting recovery. Having removed the cause wash well after each day's work and dust with any good antiseptic powder, or easier, dampen with a tablespoonful of tannic acid in a quart of soft water for three days. It will keep for a week, costs but little and is easily applied. Dusting powder made up of boric and tannic acid are equally effective, or zinc oxide may be used. Dry sulphur and air slaked lime is a favorite mixture with some and is quite good.

Sore neck in horses is due usually to one of two causes: a short collar or too cramped with the side motion as noted in a two-wheeled vehicle. A horse can carry quite a heavy weight on the neck provided there is no jerking sideways. Treatment is the same as for sore shins; remove the cause, then wash well and treat with an antiseptic and astringent wash or powder.

Pointers for Dairymen

A real good cow has large, prominent milk veins and a rich, velvet skin.

When the dairy farmers of a community begin buying pure bred cows it augurs well for the dairy business in that section.

It's a mighty easy thing for one man to advise another to be kind to his cows so that they will give lots of milk. It is sometimes quite another thing to follow out such advice. He knows best who has tried to milk a kicking heifer on a hot evening in fly time. Of course there is nothing to prevent being kind to this heifer—nothing except human nature, and human nature always seems to find expression most easily under such circumstances. Have you been there?

Of course, this is a busy time of the year. The call of the grain field is stronger with the majority of farmers than the call of the cow. Of course the harvesting and the stacking and the threshing must not be neglected, but neither should the cow be neglected. A few minutes each day spent in cutting some green fodder and throwing it over the pasture fence for the cows, or better still feeding it in the stable, is time well spent. It will result in larger cream checks right now and more economical feeding next fall and winter.

Co-operation.—The cause of agricultural cooperation," Bulletin 192, was caused to grow throughout Ontario by the publication of "Agricultural Cooperation" bulletin 192, recently published by the Ontario Department of Agriculture. The bulletin is by S. E. Todd, B. S. A., the district representative for Lambton County, stationed at Petrolia, Ont. Mr. Todd, for many years, has been an earnest and deep-aching student of agricultural cooperation. The readers of Farm and Dairy will find it interesting and well worth their while to obtain a copy of this bulletin to inform themselves thoroughly of the various phases of cooperation with which it treats.

Ontario fruit carried off the gilt medal for the best display at the Detroit Fruit Show last week. Dr. J. C. Morgan, of the Independent Order of Foresters' Home, Okaville, furnished some exceptionally fine apples to the exhibit, as did also Mr. C. C. Smith of Burlington; D. J. Wald, St. Catharines; and R. I. Waldell, of Simcoe.

Issued
Each Week

Vol. XXX.

A Proposition

WE are in

your shoes and we are in the next few weeks to let you know how we can help you. We are in the next few weeks to let you know how we can help you.

We are in the next few weeks to let you know how we can help you.

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a Year

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FOR WEEK ENDING AUGUST 24, 1911.

No. 34

A CONFIDENTIAL HEART-TO-HEART TALK WITH FARM AND DAIRY READERS

A Proposition of Interest to every Man, Woman, Boy and Girl who reads Farm and Dairy and who appreciates and believes in the great work we are attempting to do, and the services we are rendering to Agriculture in Canada.

WE are in this message about to lay before you some confidential facts about ourselves and what we hope to do within the next few weeks. This is a heart-to-heart letter from us to you, and it contains a proposition whereby you will benefit, your friends and neighbors will benefit, we will benefit and our farming industry—the most important and best in the land—and dairying, a great and important branch of agriculture, will receive uplift. We bespeak your careful and kindly consideration of what follows.

We have been gratified by the loyal support we have received and the many words of commendation that have come to us practically every day for the past three years. We have been brought to believe that our farmer readers appreciate and get actual cash value in dollars and cents from the services we are rendering weekly through these columns. We feel that you have a deep interest in this paper and are solicitous for its welfare. We believe that our interests, yours and ours, are one. We have ever done our part to make them so.

EXTEND OUR ACQUAINTANCE

Satisfaction as has been the support tendered us during the past three years, we have reached a point where we require a greater circulation. Up to July 8th our circulation was 9,203. We want this to be well over 10,500 by October 15th. With your assistance, in our special campaign of the next few weeks we will accomplish this and more.

This paper, Farm and Dairy, through which for your interests we have labored and spared neither time nor expense in making it of the utmost value and assistance to you in your farm work, is taken by only a comparatively few of your neighbors and your friends. Some of these people do not know of Farm and Dairy. Some of them have never seen a copy. Farm and Dairy has been of service to you, it can be of equal service, possibly greater, to these other people. May we count on your help to secure at least one more new subscriber to Farm and Dairy? We need your help. We will appreciate your assistance and we will pay you handsomely for every new subscriber you help us to obtain.

You are acquainted with the great big dollar's worth given in a year's subscription to Farm and Dairy. You know about our eight annual magazine special numbers. You know what these stand for, how interesting and practical they are, how worth while and helpful they are to you in enabling you to get more dollars from your work and a greater appreciation of the greater life possible to each one of us who live on farms. You know about our special illustrated supplements, about our prize farms competitions, about the special series of articles from prize-winning farmers. You know about the short, crisp and practical nature of all the articles that are featured from week to week in this your favorite farm paper. You know of the character of many of the men who write these articles and of how successful they have been in their practical work of farming. You know how interesting our front cover is from week to week and of the great number of good illustrations, pictures in which you are interested, that appear throughout Farm and Dairy.

A RECORD AND A CHARACTER

You know that Farm and Dairy is a paper that stands for something; that it fearlessly and aggressively walks out to fight the battles in your interest. In all probability you are acquainted with the great service Farm and Dairy rendered the farmers of this country through its special campaign for Free Rural Mail Delivery; in assisting to get special dairy legislation governing our cheese factories and creameries; and in everything standing for and advocating what it believes to be the right.

Then, too, you know about the character of our paper and that we do not allow, under any consideration, advertisements of patent medicine, electric belt, liquor, and other advertisements of a questionable nature to appear in its columns. You know of the reliability of our advertisers and that we guarantee them as per our protective policy published on the editorial page each week. You know that the women folks are not forgotten in our paper, in that we have a Household Department, and each fall publish a special magazine number given over entirely to the women

folk. Our religious department, "The Upward Look," is unique in the field of journalism in its practical exposition of every-day living religion. We receive many warm words of commendation about "The Upward Look."

You know about these things and about many other things too numerous to mention here, all of value in connection with the several and various departments of Farm and Dairy each week and throughout the year; but your neighbor may not know these things!

A REQUEST WE ASK OF YOU

We want you to tell at least one neighbor or one friend about these things that you have found of value in Farm and Dairy. We want you to show him a copy of the paper and to ask him to subscribe. Get us at least one new subscriber and we will pay you forthwith on receipt of his subscription, either with one of our premiums to which you may be entitled, or with a straight cash commission. Then throughout the year and in years to come, we will repay you again many fold since in the additional circulation that you will have helped us to get we will increase our power, enlarge our ability to give you greater value for your subscription price and be able to render more effective service in advancing the cause of farming in general, and of dairying in particular.

Again we ask, will you help, will you get us at least one new subscriber? Also make use of the blank herewith, sending us the names and post office addresses of six farmers who do not now take Farm and Dairy, but who likely will after having seen some copies of Farm and Dairy and are asked to subscribe? We will forward these people copies of Farm and Dairy, and will send them a copy of our great Exhibition number out next week. When they subscribe on this solicitation we will award you premiums as you may select and to which you are entitled.

Act on this request to-day. Let us hear from you now and show in this tangible way your appreciation of the great work we have in hand and are endeavoring to advance to the best of our ability. Will you write to-day? Let us have your encouragement!

Mail this Blank, carefully and thoughtfully filled out, to Farm and Dairy, Pe'terboro, Ont., and you will greatly oblige

Fill in the blanks below with the names of men who do not now take Farm and Dairy but who will on making the acquaintance of Farm and Dairy be likely to Farm and Dairy you get or help us to get we will allow you a liberal cash commission or any one or more of our special premiums you may select and to which you become entitled. For a partial list of these special premiums see page 6

NAME P. O. ADDRESS.....
NAME P. O. ADDRESS.....
NAME P. O. ADDRESS.....

YOUR NAME AND ADDRESS

Ask for any special premium you want to earn. Special Premium list sent on Request.

Definite Data About Varieties of Wheat

C. A. Zavitz, Prof. of Field Husbandry, O.A.C., Guelph, Ont.

Fully 206 varieties of winter wheat, besides a large number of selections and crosses, have been grown at the Agricultural College within the past 22 years. Practically all varieties have been tested carefully for five years in succession, after which inferior kinds have been discontinued and those that have made the highest records have been used in the experiments of the following years. In the present year 81 different lots of winter wheat were carefully tested under uniform conditions. These included 33 named varieties, 34 hybrids and several straight selections. Of the named varieties, seven have been grown for less than five years, and 26 varieties for five or more years. Fourteen varieties of winter wheat have been grown in each of the past 16 years, and the results of these are, therefore, of special value. The following table gives for each of these 14 varieties the average weight per measured bushel for 15 years, the yield of grain an acre for 1911, and the average yield of both straw and grain an acre for the 16 year period:

VARIETY	Color Pounds per Measured Bushel		Bushels Grain 1911
	Grain	Bushel 15 years	
Dawson's Golden Chaff...	White	60.3	55.1
Early Genesee Giant...	White	60.6	55.7
Imperial Amber...	Red	61.1	48.7
Early Red Clawson...	Red	59.5	57.9
Egyptian Amber...	Red	61.8	49.2
Rudy...	Red	61.6	52.3
Kentucky Giant...	Red	61.6	52.2
Turkey Red...	Red	61.7	50.8
Genesee...	Red	62.5	47.4
Tasmania Red...	Red	61.9	42.0
Tuscan Island...	Red	61.3	47.6
Treadwell...	White	60.9	51.1
Bulgarian...	White	61.2	51.3
McPherson...	Red	62.2	57.0

The average results of the 14 varieties are as follows: Weight per measured bushel, 62.2 lbs. for 1911 and 61.3 lbs. for the 14 year period; yield of straw an acre, 2.7 tons in 1911 and 3 tons for the 16 year period; and yield of grain an acre, 50.5 bushels for 1911 and 46.7 bushels for the 16 year period. These results show that in the experiments at the College for 1911, the winter wheat gave a yield of grain and a weight per measured bushel slightly higher than the average of the past few years, but that the yield of straw was a little below the average in 1911.

THE MOST POPULAR WHEAT IN ONTARIO

The Dawson's Golden Chaff winter wheat is grown more extensively in Ontario than any other variety. It will be seen that it has given the highest yield of grain an acre of the 14 varieties which have been grown at the College in each of the past 16 years. It produces a very stiff straw of medium length, beardless heads with red chaff and white grain, which weighs about the standard per measured bushel. The grain of the Dawson's Golden Chaff has been somewhat soft, but it appears to be improving in quality for bread production. The Early Genesee Giant, sometimes classed as a white and sometimes as an amber wheat, possesses a medium length of straw, with a short, compact, bearded head. The Imperial Amber produces a large amount of straw, which is somewhat weak, a bearded head with red chaff, and a red grain of average quality. The Early Red Clawson has a comparatively weak straw and grain of poor quality. The grain of the Tuscan Island, Rudy, Tasmania Red, Kentucky Giant, Turkey Red, McPherson is hard and weighs well per measured bushel, but the straw is somewhat weak.

HIGHEST YIELDING VARIETIES

Twenty-six varieties of winter wheat grown in 1911 have been under experiment for at least five years. In the five years' test, the highest yields of grain an acre of the

named varieties have been produced by the Dawson's Golden Chaff (50.1 bushels) and three other varieties which resemble it very closely and which have yielded as follows: American Wonder, 52.9 bushels; American Banner, 52.7 bushels; and Abundance, 50.1 bushels. The highest yields produced by varieties of other types in the five years' experiment are as follows: Crimean Red, 45.8 bushels; Early Genesee Giant, 44.9 bushels; Hanatka, 44.7 bushels; No. 5 Red, 44.3 bushels; and Turkey Red, 43.3 bushels. The heaviest weights of grain per measured bushel in the five years' test have been produced by the Northwestern, 63.8 lbs.; Rudy, 63.2 lbs.; Egyptian Amber, 63.1 lbs.; Genesee, 63.1 lbs.; Banatka, 63 lbs.; Kentucky Giant, 63 lbs.; Crimean Red, 62.9 lbs.; and Turkey Red, 62.9 lbs.

Of the 33 named varieties of winter wheat, grown in 1911, the greatest yields of grain an acre were produced by the Gillespie Red, 64.9 bushels; Gillespie White, 61.6 bushels; American Banner, 58.7 bushels; Winter Red Fyfe, 58.2 bushels; Early Red Clawson, 57.9 bushels; Scott, 57.8 bushels; No. 5, Red, 57.6 bushels; and Crimean Red, 57.6 bushels; and the heaviest weights

YIELD PER ACRE		Bushels Straw	Grain
Average 16 Years			
Tonia	54.1	54.1	54.1
Yona	49.2	49.2	49.2
Straw	48.7	48.7	48.7
	47.7	47.7	47.7
	46.7	46.7	46.7
	45.4	45.4	45.4
	45.2	45.2	45.2
	45.1	45.1	45.1
	44.8	44.8	44.8
	44.5	44.5	44.5
	44.4	44.4	44.4
	44.1	44.1	44.1
	43.6	43.6	43.6

per measured bushel by the Northwestern, 64.4 lbs.; Turkey Red (Alberta), 63.7 lbs.; Nigger, 63.5 lbs.; Theiss, 63.5 lbs.; and Rudy, 63.4 lbs.

In each of the past four years, the varieties of winter wheat grown in the Experimental Department were carefully tested for bread production in the Bakery Branch of the Chemical Department of the Guelph College.

The varieties of winter wheat which produced the largest loaves of bread from equal quantities of flour in the average of the tests made in 1907, 1908, 1909 and 1910, are as follows: Hanatka, Crimean Red, Tus-



A Popular Crop Even Yet in Ontario

The illustration shows wheat as it was being cut by Mr. Davis in Welland County.

can Island, Yaroslaf, Buda Pesth, Rudy, Tasmania Red, Kentucky Giant, Scott, Egyptian Amber, Turkey Red, and Treadwell.

IMPROVING VARIETIES OF WHEAT

A considerable amount of work has been done at the College during the last few years with the object of improving some of the best varieties of winter wheat by means of systematic selection and cross-fertilization. Some of the most interesting crosses have been obtained by hand cross-pollination of the Tasmanian Red, Buda Pesth, Turkey Red, and Imperial Amber with the Dawson's Golden Chaff. In 1911 crosses were made between the Crimean Red and the American Wonder. In most cases the white wheats are comparatively soft, but it is interesting to note that some of our new white wheats, obtained by crossing the Dawson's Golden Chaff and the Tasmanian Red are harder in the grain than any of the named varieties of winter wheat which we have tested at the College. Owing to the earli-

ness of the season in which this report is being issued, it is impossible to report on the cross-bred varieties.

The results of 12 separate tests made at the College show an average increase in yield of grain an acre of 6.8 bushels from large as compared with small seed, of 7.8 bushels from plums as compared with shrunken seed, and of 30.6 bushels from sound as compared with broken seed. Seed which was allowed to become thoroughly ripened before it was cut produced a greater yield of both grain and straw, and a heavier weight of grain per measured bushel than that produced from wheat which was cut at any one of four earlier stages of maturity.

In the Experimental Department, winter wheat which has been grown on clover sod has yielded much better than that which has been grown on timothy sod. In the average of eight separate tests, land on which field peas were used as a green manure, yielded 6.5 bushels an acre more than land on which buckwheat was used as a green manure. In the average of five years' experiments, varieties of winter wheat gave practically the same results when sown separately as when sown in combination.

In each of nine years, experiments have been conducted in treating winter wheat in different ways to prevent the development of stinking smut, and the results have been very satisfactory. In the average results for five years, untreated seed produced 4.2 per cent. of smutted heads, while seed which was immersed 5 to 20 minutes, in a solution made by adding one pint of formalin to 42 gallons of water, produced a crop which was practically free from smut.

Hairy Vetches.—In experiments covering a period of 10 years in which Hairy Vetches were sown in the autumn for the production of seed the following year, an average of 7.9 bushels of seed per acre has been obtained. In three of these years the yield has been upwards of eighteen bushels, and in three other years less than two bushels per acre. In 1911 the yield per acre was 18.4 bushels. The Hairy Vetches which have been grown at the College for several years, are producing about 50 per cent. greater yields of seed per acre than the Hairy Vetches which have been more recently imported.

RESULTS OF COOPERATIVE EXPERIMENTS WITH AUTUMN SOWN CROPS

Four hundred and forty farmers throughout Ontario conducted experiments with autumn sown crops during the past year. Reports have been received from thirty-three of the counties of the Province. The average results of the carefully conducted cooperative experiments with autumn sown crops are here presented in a very concise form.

Winter Wheat.—Five varieties of winter wheat were distributed last autumn to those farmers who wished to test some of the leading varieties on their own farms. The average yields per acre are given in the following table:

VARIETY	STRAW PER ACRE (Tons)	GRAIN PER ACRE (Bushels)
Imperial Amber ...	1.5	26.1
Crimean Red ...	1.4	24.7
No. 5 Red ...	1.3	23.3
American Banner ...	1.2	22.3
Tasmania Red ...	1.2	21.8

It will be seen that the Imperial Amber has given good results throughout Ontario as well as at the Ontario Agricultural College. The Crimean Red, which stands second in the cooperative experiments, has been grown at the College for nine years and is one of the highest yielders. It possesses wheat of excellent quality, but the straw is somewhat weak. The American Banner is a wheat which resembles very closely the Dawson's Golden Chaff variety in method of growth and in quality of grain.

Renew your Subscription now.

Types of Sil

C. F. H. B.

A great man Eastern Ontario reason to believe be started before can be constructed. A very fr of silo should be factored stave are not satisfactory the so-called time and money. a few facts as to may be of some uing, in settling

Contrary to so is a well-established can be turned out types of silos. used it is of go expensive, but a turn out first cl ight. Such a capacity for 100 crop of 7 or 8 a plete with roof f

A cement silo where about twice upon the pu those two estim the cost of silos sios as to the v their respective c

First class ensil ent types, the qua into something els

THE QU In regard to fre general types, nam ed stave and hom the country ensila any of them, unl provided. With a serious matter i the hard so that a be used every day level with all frozen

As to loss in den sillage (for whil able amount, usua quantity unfit fo pend upon the deta in filling. For exa at the foundation cracks, anywhere i particular will cau the detail of this a portant. One sho poorly fitting door doors are giving a Special care is nee trapping is impossi is considerable sp the first year, spec immediately before largely prevented by a special coat of ce material.

AN IM When it comes t course the cement sil is a permanent str After considering the question may be lows: If a man fee expensive silo (or ough to have two) him in view of the for only one crop t cheaper home-made can furnish some n immediate purpose a

Types of Silos—Which Shall we Build

Prof. H. Barton, Macdonald College, Que.

A great many silos are being built through Eastern Ontario and Quebec, and there is every reason to believe that a great many more will be started before the corn crop is cut, since they can be constructed in a comparatively short time. A very frequent question is: "What type of silo should I build?" The agent for manufactured stave silos tells me that cement silos are not satisfactory and that the building of the so-called home-made silo means a waste of time and money." Some general comparisons and a few facts as to results with the different types may be of some value, to those who intend building, in settling this question for themselves.

Contrary to some arguments frequently used it is a well-established fact that first class ensilage can be turned out from each and all of the three types of silos. The home-made stave silo, proved it is of good construction, not necessarily expensive, but substantial and well made, will turn out first class ensilage if other factors are right. Such a silo 15 by 30 feet and with a capacity for 100 tons of ensilage or an average crop of 7 or 8 acres of corn, can be built complete with roof for a little over \$100.

A cement silo of the same size will cost somewhere about twice that amount, or \$200, depending upon the particular type of construction. These two estimates may serve as a basis for the cost of silos and will afford comparison in silos as to the value of the various types and their respective costs.

First class ensilage being possible with different types, the question of silo types resolves itself into something else.

THE QUESTION OF FREEZING

In regard to freezing of ensilage, in the three general types, namely, solid cement, manufactured stave and home-made stave, in this part of the country ensilage will freeze more or less in any of them, unless some special insulation is provided. With any of them freezing is not a serious matter if the silo is not too large for the herd so that a considerably thick layer may be used every day, and if the ensilage is kept level with all frozen ensilage chipped off the sides.

As to loss in decay or proportion of spoiled ensilage (for while frequently we have no noticeable amount, usually there is, in most silos, a quantity unfit for feeding), the amount will depend upon the detail of construction and the care in filling. For example ledges even though small at the foundation will prevent uniform settling, cracks, anywhere in construction and at doors in particular will cause the ensilage to spoil so that the detail of this sort in any silo is highly important. One should not be satisfied with a poorly fitting door in any silo—various types of doors are giving satisfaction when well fitted. Special care is necessary in filling; too much tramping is impossible. In the concrete silo there is considerable spoiled ensilage around the edge the first year, especially if the silo is newly built immediately before filling. This loss can be largely prevented by giving the inside of the silo a special coat of cement plaster or some similar material.

AN IMPORTANT FACTOR

When it comes to considering durability, of course the cement silo has the strongest claim; it is a permanent structure and is fire proof.

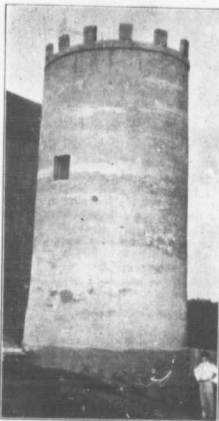
After considering the features of various silos the question may be summed up something as follows: If a man feels that the cost of the more expensive silo (or of two silos, for many men ought to have two) is quite a consideration for him in view of the fact that it means storage for only one crop there is no reason why the cheaper home-made silo (for which it may be he can furnish some material) will not serve his immediate purpose and consequently he need not

be without a silo. If he is not in a position to build the silo himself, and rather than be bothered with it would pay something extra, he may get other people to put him up a good silo, then he should consult the agent for silos. If he wants a silo that will be a permanent, good looking building, and is not so particular about initial cost he might build one of the concrete type.

A "Home-Made" Concrete Silo

W. G. Johnson, Peterboro Co., Ont.

We put up our cement silo at less expense than a wooden one of the same size would have cost us. We rented the steel molds for \$10, and with the assistance of one extra man we did all the work ourselves. The silo is 13 by 35 feet inside measurement, and would have cost us, labor and all, about \$200. We used one part of cement to six



A Cement Silo "Made at Home"

parts of gravel. The wall is 10 inches thick at the base and six inches at the top, with reinforcements at every opening. I believe that a much lighter wall would have been equally good.

We have used our cement silo for two years, and it has given excellent satisfaction. It will neither blow down nor burn down, and there is no tightening and loosening of hoops as with a wooden structure. We used a stave silo for six years, and while it answered the purpose very well, it finally blew down, and we decided to put a cement one in its place.

Silage or Roots—Or Both

L. C. Smith, Peel Co., Ont.

We regard succulence and palatability as of almost equal importance with the proper balance of food nutrients in the ration for dairy cows. A ration containing a large amount of succulent food is almost certain to be palatable. We obtain succulence by the feeding of corn ensilage and roots. Of these two, corn ensilage is by all means the cheapest, and we would advise those who have not already erected a silo to build one if they have any corn to put in a silo this season. We prefer to grow a few roots also, but since we have gotten our silo the acreage of roots has been greatly decreased.

We have found that we can grow ensilage for about one-third of what the same food value in

roots would cost us. Corn is much the cheaper crop to produce, in that there is less hand work both in growing the crop and in storing it. Putting corn in the silo is an expensive operation, and I have had farmers tell me that they have hesitated to put up a silo because of this expense. In my opinion harvesting the root crop, involving as it does such a large amount of hand work, is the more expensive crop of the two to store.

When it comes to feeding in the winter the ensilage is away ahead. It is a comparatively easy job to take a large fork and throw out enough ensilage for a large herd of dairy cattle. The roots, however, if we are to mix them with the other food, and I regard this as the best way of feeding them, have to be sliced or pulped, which work involves a large amount of labor. Roots, however, are somewhat more succulent than ensilage, and we find a small proportion of them a profitable addition to the daily ration, and furthermore they have a beneficial action conducing to the general thrift of the animals.

We believe that our silo pays for itself almost every year that it is in use. It adds at least 20 per cent. to the feeding value of the corn fodder and saves much labor as well.

Does It Pay to Fall Plow?

T. G. Raynor, Seed Division, Ottawa.

During my inspection work in visiting members of the Canadian Seed Growers' Association, this summer, my attention was drawn by Wm. Lewis, of Dunford, Ont., to a field of oats where part of the land had been fall plowed and part spring plowed. The fall plowed part, I believe, was spring plowed lightly. Any one with "half an eye" could see to the last furrow where the fall plowing left off and the spring plowing began. On the fall plowed part the oats were ranker, larger strawed and gave promise of yielding much better than on the spring plowed land. Mr. Lewis' farm was a clay loam. This year it was to some extent a question of moisture. Fall plowed land makes a better reservoir for holding moisture and this to some extent doubtless accounts for the difference in favour of fall plowing. It is almost always advisable to plow clay lands in the autumn. If clay land can be plowed shallow soon after the hay is removed in the case of sod, and after the crop is taken off in the case of stubble, it is so much better, as it not only ensures a good reservoir for holding moisture, but also stores up more available fertility than where the soil is plowed but once.

I learned quite recently, however, that in the clay belt of New Ontario, the grain sometimes happens when the springs are wet, as spring plowing makes drainage easier. The fall plowed clay with a good deal of wet in the spring, especially when the humus has been burned off pretty well in clearing, will run together and have a tendency to bake. If the New Ontario clay were properly underdrained, although it is more or less friable, due probably to there being plenty of lime in it, I believe that fall plowing would be better—even with a wet spring.

I would have it thoroughly understood that while I thoroughly believe in fall plowing all the land if possible, yet there are conditions where spring plowing is all right. For instance it is good practice to let clover grow until the middle of May, and plow it under with a coat of manure bed conditions. It is frequently wise to leave over more meadow in the autumn than it is intended to keep as some of it may become so badly winter or spring killed that it will not pay to keep it for meadow. In this way one's general plans may be interfered with. My experience teaches that it is a wise practice to plow all soil intended for spring crops in the autumn, and more especially all clay soils.

SWINE DEPARTMENT

Our readers are invited to ask questions in regard to swine. These will be answered in this department. You are also invited to offer helpful suggestions or share your experiences through these columns.

Some Comments on Hog Prices

Wm. L. Falkingham, Grey Co., Ont.

Quite a number of prominent hog raisers are going out of business in our neighborhood. There is a decided tendency to raise less hogs since there is nothing in raising hogs at present prices. Everything the hog eats means money, and we find that by feeding less hogs and more cattle, we have less work and more profit.

Our packers and dealers are mostly to blame for the shrinkage in the number of hogs. As soon as hogs become scarce they raise the price to a fair value and farmers rush into the business, only to find that they are only just ready to enter to the trade, when down goes the price and we are feeding a lot of hogs at a loss. If the packers would keep prices more steady, it would be better for all concerned. The uneven price has caused most of our largest hog raisers to become disgusted with the business and quit.

I am very sorry to have to write in this strain, as the decline in the hog business means a lot to us. We raise pure bred Yorkshires, and have some of the very best strains that can be bought in the country. Often in a spring we have had 30 to 40 sows come for service. This spring we have not had 10. This is proof sufficient to us that hogs are becoming scarce.

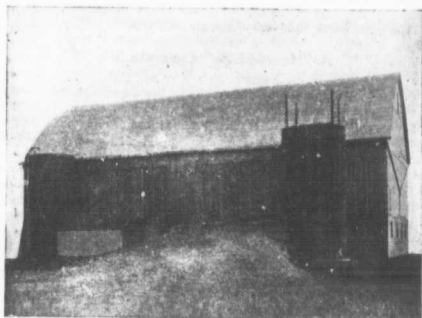
A TYPICAL CASE

If our packers want the Canadian farmers to raise hogs, they must pay

a fair price, pay it all the time, and not cull our hogs as they do at present. They have juggled the prices up and down to suit themselves. For instance, a farmer has a bunch ready for market. He is watching the price. The dealer comes, and tells him that

the business and goes into something more steady, and more to be depended on. And who can blame him? I cannot.

We are apt to sell at combines and monopoly. Of them all, the worst are the hog and poultry packers, for they



Substantial Structures Built for Business and Return on Investment

Note the businesslike "air" about these buildings on Mr. W. H. Banks' farm, Ontario Co., Ont.

the price for the week is down 30 cts. to 50 cts. The farmer refuses to take the price, and keeps on his hogs a couple of weeks. The hogs are getting heavier, and Mr. Farmer knows he is losing money. The dealer comes again, and is able to offer 10 cts. to 15 cts. more. So off they go to market, only to find that they are to be culled, because they are over weight. If this practice is fair, we cannot see it. Our farmer becomes disgusted at

are driving a lucrative business at the expense of the farmers. In this part of the country we are longing for reciprocity, so that we may ship our stuff over the line, or rather, so that our packers will have to compete with the United States men.

I think Farm and Dairy a most excellent farm journal. I frequently recommend it and show it to farmers. We wish it every success.—Theo. Hall, Huron Co., Ont.

Alfalfa Pasture for Hogs

Henry Coates, one of the most successful hog raisers of Kansas, claims that hogs on alfalfa pasturage fed on a small grain ration will do as well or better than those fed on full feed of grain in dry lots. Mr. Coates says:

"Twenty-five years of pasturing hogs of all ages on alfalfa has proved to me conclusively that a fourth to a substantial ration while they are on such pasture will produce greater growth per day than when they are kept in dry lots and fed on full rations of corn. Hogs will maintain a reasonable growth, but not fat enough for market on alfalfa pasture alone, therefore it is better to feed them with some grain while running on green alfalfa in order to make them profitable."

"If it is desired to full feed hogs they will make a rapid fattening growth from increasing the grain ration while they are on the pasture and with this grain and alfalfa combination, the meat will be nearly as firm as that of the hogs kept in the dry lot and fed on nothing but grain. I find no distinction on the market between alfalfa fed swine and those purely grain fed and they sell price and price alike. The general health of the alfalfa fed hog is equal to that of those maintained on any other feed and they are prolific."

Kill the Weeds.—Plow at once and give the weed seeds a chance to germinate before the cold weather and to be killed by frost. Plow about two inches deep, harrow and disc the land. It will conserve soil moisture as well as destroy weeds. Plow again later in the fall, and cover the weed not killed by frost. It is important to encourage the germination of weed seeds now.

August 24, 1911
FARM M
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AMPLE REWARDS FOR LITTLE LABOR

FARM AND DAIRY'S LIBERAL PREMIUM OFFERS

DURING the next few weeks while our campaign is under way to increase the circulation of Farm and Dairy to 10,500 by October 15, we are making some unusually liberal premium offers. For instance, instead of asking for Nine new subscriptions to win a pure-bred young pig,

A PURE-BRED PIG FOR ONLY SIX NEW SUBSCRIPTIONS

More complete details of this offer are given elsewhere in this issue. We will also give

A PAIR OF PURE-BRED FOWL FOR ONLY THREE NEW SUBSCRIPTIONS

Premiums that hitherto we have offered for Two new subscriptions, we now offer for only One. Here are some of our great offers:

FOR ONLY ONE NEW SUBSCRIPTION

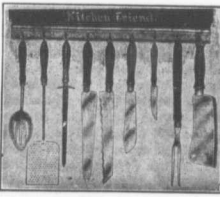
WE WILL GIVE

- A Buck Saw.
- A Fountain Pen, 14 Kt. Gold Point (worth \$1.00)
- Gardener's Knife (Extra Heavy).
- Pruning Shears (Eleven-Inch).
- Books on Agriculture, Horticulture and Dairying (Your Choice of 4).
- Embroidery Stamping Outfit.
- ANY FIVE PATTERNS Shown in Farm and Dairy
- The Canadian Horticulturist for One Year (Published Monthly, 50 cents a year).



FREE for only One New Subscription to Farm & Dairy. Perfect time keeper, a fine premium; worth working for.

Repeating Alarm Clock for Two New Subscriptions. Sent post paid.



FOR ONLY TWO NEW SUBSCRIPTIONS

- A Repeating Alarm Clock
- Boy's Nickel Plated Watch.
- Ten-Inch Tested Dairy Thermometer.
- Woman's Kitchen Friend.

FOR ONLY THREE NEW SUBSCRIPTIONS

- Roll Film Camera (See Illustration).
- Combination Repair Outfit.
- Russell's Brunswick Carpet Sweeper.
- 12-Piece Toilet Set.
- Fish Net Lace Curtains, 52 Inches Wide, 3/4 yds. Long.

FOR ONLY SIX NEW SUBSCRIPTIONS

English Semi-Porcelain Dinner Set of 95 Pieces. (Hitherto we have asked 9 subscriptions for this set.)

EXTRA SPECIAL—\$15.00 Cash for 25 New Subscriptions each taken at only \$1.00 a year.

Many other premiums, including Books, Household Utensils, Furniture and Live Stock, will be given to you in consideration of the help you render us between now and Oct. 15th.

Start in right away; others will start To-day.

Subscriptions may commence with our Special Exhibition Number and Illustrated Supplement out next week.

FARM AND DAIRY, Peterboro, Ont.

FARM & DAIRY CAMERA



It is the best made camera for the price we know of. It is a Roll Film camera of the new focus box type, taking Pictures 2 1/2 x 3 1/2 inches.

For three New Yearly Subscriptions to Farm & Dairy at \$1.00 each.

BOY'S NICKEL PLATED WATCH



FREE, post paid, for only Two New Subscriptions to Farm and Dairy. Good time keeper, and well planned. Every boy should have one.

FARM MANAGEMENT

Disk Stubble Land After Harvest

After the harvest the land dries off very quickly. Unless we have abundant rainfall it frequently becomes too dry and hard to plow well in September. This condition applies as much to the humid as to the drier sections of the country.

It is important that the soil be treated so as to conserve the largest amount of moisture. This position can be done only by making a mulch over the surface by double disking the stubble as soon as possible after the grain is cut.

Will Seed Crop Injure Alfalfa?

I have a piece of alfalfa, a very good stand. This is its first year to be cut. I go for seed this year and will injure the stand to take a crop of seed?

The alfalfa plant being a perennial, will not be injured any more, in the ordinary course of circumstances, by taking a crop of seed.

The belief, that is given expression in some quarters, that the stand of alfalfa would be injured by taking a crop of seed is, in all probability, founded on experience with red clover in this connection.

Eradication of Stink Weed

What system would I have to use to eradicate stink weed, also named in this district. French weed?—K. P., Peterboro Co., Ont.

The stink weed to which you refer, is often designated by the following names: French weed, penny cress, bastard cress, and wild garlic.

This weed is easily identified as it is practically without leaves; in fact, the leaves are made conspicuous by their absence.

The flower of the stink weed is small and of a white color. It produces seed from June until November. The seeds that germinate in the fall live through the winter and produce seed the next spring, while those that start to grow in the spring produce seed before winter.

There are several methods of eradication recommended. Among these is hand pulling, which is slow and inefficient in most cases.

Another method that is sometimes practiced, and is considered very successful, is the application of a 20 per cent. solution of iron sulphate.

In sections of Canada it is claimed that 40 bushels of wheat have been raised on clean fields, while adjoining land that was infested with the stink weed, did not yield over 10 or 12 bushels.

Silos in Alberta

One of our Alberta subscribers writes the editors of Farm and Dairy requesting us to enquire through these columns if any of our readers have had experience with ensilage in Alberta.

Will any of our Alberta subscribers who have had experience in silage in the Province of Alberta kindly write us in this connection?

How the Corn Was Grown

Editor, Farm and Dairy.—The following is a brief outline of the treatment given the plot of corn shown in the illustration, and which seemed to strike you quite favorably.

The variety is "White Cap Yellow Dent," and was planted May 26th. Cultivation was kept up regularly after each rainfall and once a week during that hot dry weather.

tion was given with a Planet Junior Hand Cultivator, and although the corn is 11 feet high, cultivation still goes on and will continue to do so for some time yet.



Splendid Corn Despite Dry Weather

How is it that this corn, photographed by an editor of Farm and Dairy at Port Hope, on Saturday, August 5, has such a luxuriant growth and some of it measured over 11 feet in height, while other corn in the same district is much inferior and of drought?

There must be a reason for this corn having done so well. It is on the experimental plot, in connection with the branch office of the Department of agriculture at Port Hope, where are to be found several other lessons of great value to those farmers and others in the district who visit the plots.

There is no special feature of this treatment to which I can attribute this excellent growth unless it is the cultivation which kept down the weeds and conserved moisture.—R. S. Duncan, Port Hope, Ont., District Representative for Northumberland and Durham.

A Great Help to Alfalfa

Recently we passed a nice field of alfalfa nearly ready for a second cutting. The stand was good and the foliage very green.

The owner cut it twice last year but received from both cuttings less than what one cutting will now make. In the fall there were big bare spots in the field and some farmers would have turned the crop under and would have had nothing to do with alfalfa again.

Mr. Wing says: "From experience I feel sure that I had rather take a poor piece of land, well manured, for alfalfa growing, than a naturally rich piece of land with no manure."

In Iowa, on the experiment station farm at Ames, a field was sown in alfalfa. All the seed after the alfalfa was sown, the tiny nodules were found on the roots and this field was the first sown in that neighborhood, nor was it artificially inoculated.

In Iowa, on the experiment station farm at Ames, a field was sown in alfalfa. All the seed was sown the same day and in no way was the treatment of one part of the field different from the treatment of any other part, yet there was secured a fine stand of thrifty alfalfa on one side of the field and very thin and poor alfalfa on the other side.

It pays to advertise. Try it.

Advertisement for Standard Cream Separators. Includes an illustration of a hand-cranked cream separator machine. Text: "An Opportunity to see the World's Greatest Separator YOU ARE WELCOME AT OUR EXHIBIT OF 'STANDARD' CREAM SEPARATORS AT THE FOLLOWING FAIRS: Toronto Aug. 26 to Sept. 11, Quebec Aug. 28 to Sept. 5, Sherbrooke Sept. 2 to Sept. 9, London Sept. 8 to Sept. 16, Ottawa Sept. 8 to Sept. 16, Renfrew, Sept. 21 to Sept. 23, Halifax Aug. 30 to Sept. 7, Chatham, N.B. Sept. 11 to 16, Charlottetown, P.E.I. Sept. 26 to Sept. 29. If you cannot come send for our Catalog The Renfrew Machinery Company, Ltd. Eastern Branch, Sussex, N.B. RENFREW, ONT."

HORTICULTURE

Fruits for New Ontario

I am a settler in New Ontario and am desirous of getting some strawberries, berries and currants. I also want to get a variety of apples that will do well. Strawberries do well here. Where could I obtain the above? Can you give me any instructions as to the best varieties for this section?—V. L. P., Thunder Bay District, Ont.

I am glad to know that some one in your section of the country is contemplating the planting of fruit-bearing trees and shrubs. You will do well, I think, to order from one of the larger nursery firms. You should have no difficulty in securing hardy varieties of currants and gooseberries, as most of the varieties grown in Ontario are sufficiently hardy for your climate. In gooseberries Pearl, Downing, or Red Jacket are desirable varieties. In red currants, Cherry and Fay; black currants, Victoria and Nain.

We find the Parson's Beauty strawberry a particularly hardy and vigorous variety and very productive. I



SYNOPSIS OF CANADIAN WEST-LAND REGULATIONS

Any person who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency, or sub-Agency, for the District Entry by proxy may be made at any agency on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may purchase a quarter section alongside his homestead. Price \$3 per acre. Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres fifty.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price \$3.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.

W. W. COBY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

WESTERN LAND FOR SALE

In areas to suit purchasers, from 160 acres upwards, situated on or near railways in the Best Wheat, Oat and Stock Growing Districts of

SASKATCHEWAN AND ALBERTA

250,000 Acres to choose from

Prices low. Terms generous and helpful. Special inducements given actual settlers, and those requiring blocks for colonization purposes.

Write for particulars. Reliable agents wanted in every county.

F. W. HODSON, & CO., TORONTO, ONT.

Room 100 Temple Building

Branch Office:—North Battleford, Sask.

During 1910 we sold over 135,400 acres; during the past four years we have sold over 400,000.

would suggest that you give it a trial, but you will have no difficulty in procuring a suitable variety of strawberries. In raspberries, I would recommend you to try Herbert and Out'bet. The latter is the old standby, but the former is harder.

In tree fruits, I would recommend you to purchase one-year-old trees, if possible, so that they may be headed low in order to prevent "sun-scald" at the trunk. You should be able to grow the Duchess apple, also the Yellow Transparent and Wealthy.—Prof. J. W. Crow, O.A.C., Guelph, Ont.

Pointers on Celery Culture

D. Dempsey, Perth Co., Ont.

When the celery plants start to grow after they are set in the field we loosen the soil around them and don't allow the soil to bake or dry out during the season of growth. We draw earth around the plants until they commence blanching. It is well to have the celery well grown before it commences blanching as the slugs and other pests are apt to get into the earth and injure the crop.

I prefer blanching with earth to any other method that I know of for the production of good crisp stock. Before we commence to blanch we have our soil well cultivated between the trenches. Then we use a double mould board seeder to shove the soil up near the rows. We then get down and use our hands for the first earthing-up by grasping the plant in one hand holding so as to keep the soil out of the heart, then draw the soil around the plant with the other hand. In drawing get well up to the plant it will hold it upright so that it will protect the heart in future banking. We keep cultivating and drawing the soil up to the rows every few days till the celery is fit for the table, which is in a few weeks after we commence to earth up.

USE WHEN BLANCHING

This is the time when the celery requires to be watched carefully, and used our hands for the first earthing-up we commence to use it. A great many people are under the impression that if they get celery properly blanching that they will keep in good condition. But it is only a matter of a few weeks at most till the heart begins to throw up the seed stalks and it soon becomes pithy and out of order; especially during the warm weather. But we can hold it back by digging up and trenching in a cool moist place and covering to nearly the top of the stalks.

Here it is that our poor celery comes in. It may be in the best of

condition this week and the next week be over-ripened and out of order and it is very often put on the market in this poor condition, and thus injures the sale of good stock. It is better to keep planting at intervals through the early part of the season so as to mature as we require it for summer and fall consumption.

WINTER CELRAY

This only applies to the summer celery. For a winter supply we can plant all about the same time, say about the first or second week in July, and cultivate the same as the earlier crop. We do not earth up till the weather becomes cool, and there is danger of frost. We leave it in the trenches as long as possible without danger from heavy frost, then dig up carefully and dress off some of the outer leaves and put into a cool cellar or frost proof building, setting the plants close together in an upright position on a damp earth

APICULTURE

Bees in Greater Ontario

The success with which bees may be kept in Northern Ontario is well illustrated in the following letter received by Mr. Morley Pettit, Provincial Apiarist, last fall, from a bee keeper at Whitewood, a place near Lindsay. The illustration herewith shows this man's apiary in the north county.

"I consider it my duty to give you my experience in beekeeping up here in the Nipissing District, 500 miles north of Toronto and 17 miles north of New Liskeard. I got two hives of bees from old Ontario three years ago. They were shipped by rail to Lindsay, then by boat 45 miles, then by road about two miles, then had to be carried a mile and a half to destination. The first season there were three



Industrious and Profitable Honey Bee Will Do Well in Greater Ontario. This illustration shows an apiary in Northern Ontario located near Liskeard. A letter in the adjoining column tells of the interesting experiences connected with the establishment of this apiary.

floor. If in danger of frost cover with dry leaves about four or five inches deep and it will soon blanch up and be fit to use. It can be kept practically all winter in this way.

Applies in Cold Storage.—The result of holding apples in cold storage for a prolonged period was recently demonstrated to the satisfaction of refrigerating experts at the cool stores of the Victorian government in Melbourne, Australia. On April 1, 1910, 20 cases of Five Crown apples were placed in the cold chambers, and after nearly six months were found to be in excellent condition. The apples looked as if freshly picked, and although somewhat mealy to the taste, were in good marketable order. It is evident that careful refrigeration is an important factor against overseas apples finding a remunerative market in Australia and also in continuing exports far beyond the usual time.—D. H. Ross, Trade Commissioner, Melbourne, Australia.

The fruit crop in the Annapolis Valley of Nova Scotia this year will be at least 40 per cent. larger than that of any other year in the history of the country. The estimate is for a crop of one and a quarter million barrels. The quality cannot be surpassed. I have yet to see a scabby apple this year. If the price is in proportion to the crop this will be a banner year for fruit growers.—P. L. Morse, King's Co., N.S.

Apples will not be a heavy crop; they did not set well due to warm weather. Fameuse are best, Russet a failure. Cherries and plums will be a fair crop.—J. Davidson, Bruce Co., Ont.

swarms and about 50 pounds of comb honey were packed the five hives in rough boxes for winter with about 11 inches of sawdust. They wintered in fine shape, never saw bees winter better in old Ontario. The second year I wintered seven in fine shape, and they increased the third year to 24, which I have just put away for winter. Had 600 pounds of honey. The honey resources and the amount of honey they can gather is something wonderful.

"I have leased my farm and am going to devote my time exclusively to beekeeping.—A."

Beekeepers and Reciprocity

A Toronto dealer has sent a circular card headed "Large capitals, important to Apiarists" to a number of long producers in the country, warning them that "if reciprocity carries over-traded honey will be cheaper," and hinting at a vote against the agreement on September 21. Here is how it strikes the Dundak beekeeper August 8, 1911:

"I enclose a card which I received recently. The sender is no doubt concerned, very much concerned, for my welfare, and represents himself as such. He, however, appears strangely indifferent to the interests of his customers in Toronto and elsewhere. I had no knowledge that any such consideration was felt for me as a producer of honey by a stranger who is willing to sacrifice his customers, poor and rich, that my produce may be protected. I expect every honey producer has received the same kind warning. But I can tell his fate. I am not afraid. I do not fear competition with American honey.—Chas. Palmer.

POULTRY

Pure Breeds

A. W. Foley,

The reason that the ways proven thus understood by custom which the art of breeding. The whether with poultry with birds of inheritance that means that certain lines of certain offspring and the dictory law, the law "like begets unlike" every effort to secure a pure breed has been a number of generations only that conform to the resulting offspring do not possess a uniform characteristics since birds which have been bred through the times. A bird of the line of breeding it implies that it has printed its own like offspring.

If two birds of different breeding be mated. The character breed strive to assure the result that one or the other in evidence may possess the same, remote ancestor so true of the first of the succeeding ones. In case the benefit of careful breeding is the improvement of the introduction another breed into the time of cross is made is to mate birds of and to mate cross production of scrupulously poultry results in a decided. The law of selection importance to the breeds. By having his mind and by breeding pen on which conform most type, the breeder generation to become in desirable characters also finds that in generation there are

Ration for L

The poultryman in his country experiment Massachusetts experts that the free use of corn in winter is profitable. Corn is preferred to other feeds. Some form of dry satisfactory food for It is best to feed mung, but if given in quantities the birds become given whole grain, must scratch among out the necessary ex- In a year 30 differ- has been made to a

Advertisement for ABSOLUTELY PURE BREEDS, featuring a picture of a rooster and text about poultry breeding and quality.

POULTRY YARD

Pure Breeds Are Prepotent
A. W. Foley, Edmonton, Alta.

The reason that scrub poultry always proves unsatisfactory may be understood by considering the relation which they bear to certain laws of breeding. The laws hold good whether with plants or animals, whether with birds or beasts. The law of inheritance that "like begets like" means that a parent is inherited by the offspring and the apparently contradictory law, the law of variation, that "like begets unlike" means that every offspring differs from its parent to some extent. If a variety of fowl has been bred pure for a great number of generations and in every generation only those allowed to live which conform to a certain type, the resulting offspring are very likely to possess a uniformity of type and characteristics similar to that in the birds which have been used for breeding through the previous generations. A bird resulting from such a line of breeding is prepotent, which implies that it has the power to impart its own likeness upon its offspring.

If two birds each of distinct lines of breeding be mated there is a conflict. The characteristics of each breed strive to assert themselves with the result that one or the other may not be in evidence; or the offspring may possess the characteristics of some remote ancestor. This is not so true of the first cross as it is of the succeeding ones, but, in any case, the benefit of the long line of careful breeding is lost. Theories of the improvement of a flock by means of the introduction of the blood of another breed are disproved every time a cross is made. To breed pure is to mate birds of the same breed, and to mate crossbreeds means the production of scrubs, and to attempt successful poultry raising with scrubs results in a decided failure.

The law of selection is of the first importance to the breeder of pure breeds. By having a type fixed in his mind and by selecting for his breed only those of the individuals which conform most closely to that type, the breeder is causing each generation to become more prepotent in desirable characteristics, and he also finds that in each succeeding generation there are fewer culls.

Ration for Laying Hens

The poultryman in charge of the poultry experiments made by the Massachusetts experiment station says that the free use of fine-cut clover in winter is profitable. Animal albumins are preferable for feed instead of those derived from vegetables. Some form of dry animal food is a satisfactory food for egg production. It is best to feed mash in the morning, but if given in too large quantities the fowls become inactive. If given whole grain, for which they must scratch among the straw, hens get the necessary exercise.

In 10 years 30 different experiments have been made to determine the results of a combination of feeds with

relative wide and narrow nutritive rations. The object was to throw light upon the general question as to the extent to which corn may be safely used as the principal grain for laying hens. Wheat has been largely used in comparison with corn. The first has a wide nutritive ratio and the latter a narrow ratio.

Summing up, it is found that the wide nutritive value has given the greater number of eggs in 18 out of the 36 experiments, and the narrow has given the greater number in 17 experiments, so that there is little difference in the number of eggs produced.

These experiments have been on the whole confirmed by the experiments at other stations. The conclusion is that corn and corn meal may safely be made prominent in the ration of laying hens, it is necessary, however, to use with the corn a liberal amount of animal food.

Experience with Poultry Houses

J. Terry, Wellington Co., Ont.
The two single slant roof houses we use are built of dressed pine, excepting that one has a muslin cloth front, and the other, movable windows. Our other two houses, although Loth have a double pitch roof are not of the same design, nor is the lumber the same in each. One house, which we call the cold house, is constructed of hemlock one inch boards with the cracks battened. It is single ply. The front or south side is always in winter, excepting on stormy days or when there is no sun shining. This house is the cheapest built of the four. It also gives the most all round results, i.e., general health, egg laying and fertility.

WARM HOUSE NOT SATISFACTORY
The other house is termed a warm one, it is built of dressed pine, four-inch and grooved, two ply with dead air space inside. Building paper is also used between. The south side contains four windows, each the same dimensions as those used in the cold house. These are tight. The results obtained from this house are the poorest of the four. The air, in winter, is bad, and the atmosphere is always damp and stuffy, so much so that it is noticed that the same number of birds drink three to four pints less water daily than those in the other three houses. The windows of this house have had to be removed in spring and summer, or it would have become well-nigh uninhabitable.

These last two houses have straw lofts. These have been a great success. Boards are placed lengthwise about four inches apart, and about a foot of straw staked thereon. This is put through a small opening at each end of the building. No frost has been noticed on the walls of the house where this plan has been followed. The vents mentioned are left open during the summer months and are instrumental in keeping the houses much cooler than houses having a single roof.

DO NOT OLD NOT INJURIOUS
The difference in temperature of the warm and cold houses is about 10 degrees, and yet there has been a 16 per centage of frozen combs in the former as in the latter. The question of comb freezing is not a matter of low temperature but rather of low vitality.

As regards roofing, the two single-slant roofs were covered with tarp, lapped and nailed to rough boarding. These have had to be renewed recently. The other movable things they look good enough for a long while yet.

One of the other houses has been covered with a patent rubber roofing. This was only done experimentally, so cannot state as to its durability.

All of these houses are permanently fixed, and have grass runs attached. One interesting thing brought out is that Wandottes need a much larger area of grass run than Orpingtons, even when the egg yields are equal.

Poultry Notes

A one year poultry course is to be given at the Iowa State College. The course will cover all phases of poultry husbandry, and will include much practical work as well.

At the fourth annual meeting of the "International Association of Instructors and Investigators" of poultry problems at the University of Maine, Professor F. C. Elford, of Macdonald College, was elected president.

Many valuable prizes have been donated towards the International Egg Laying Competition to be held at the Storrs Agricultural Station, Conn. This competition, which is being conducted by the "North American," of Philadelphia, is open to Prof. Elford, who is handling the Canadian end of it, hopes to see our poultry men enter pens in the competition. In the prize list are money, cups, and incubators.

Clean house often and don't forget the windows. Wipe them clean.

It may be that even while running about on the farm, hens can find the grit they like, or enough of it. See that the boxes are well supplied all the time.

Experienced farmers want the Bissell, but no other genuine unless it bears the BISSSELL name. Remember that.

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Brock, Ont., Can.

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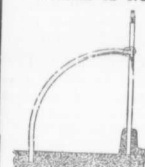
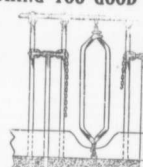
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The most successful dairy farmer provides his herd with the most sanitary stable equipments procurable, and consequently secure increased returns.

Louden's Tubular Steel Stalls and Stanchions are used in the dairy stables at both Guelph and Ottawa Winter Fairs. There's a reason.

If you are building or remodeling your stables this season, send us a plan of them and we will cheerfully estimate on cost of installing Cow Stalls and Stanchions, Litter Carriers, Etc.

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LOUDEN MACHINERY CO., GUELPH, ONT.

Exhibition Number, August 31st




The READERS of Farm and Dairy are looking forward to our

Fourth Annual Exhibition Number

to be issued August 31st.

CONTRIBUTIONS to this Number will be by noted agricultural authorities on important subjects. Every department of the farm will be covered by interesting and instructive articles. The illustrations will be the best that can be obtained. This Number will also contain an illustrated supplement the equal, if not the superior, of anything we have yet published.

The **CIRCULATION** of this Number will be largely increased. Besides going to our regular readers, many sample copies will be mailed to selected lists, and many more will be distributed to those attending the leading exhibition in Eastern Canada.

ADVERTISERS who use large space in this Number will benefit greatly. Any advertiser who desires to reach the best farmers of Eastern Canada cannot afford to miss this great issue.

RESERVATIONS of space should be made at once, and copy should be in our hands not later than August 25th.

For full particulars address **ADVERTISING DEPARTMENT**
Farm and Dairy - Peterboro, Ontario

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AND RURAL HOME

Published by The Rural Publishing Company, Limited.



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The paid subscriptions to Farm and Dairy exceed 5,800. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 8,000 to 11,000. Our subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any names of circulation.

Sworn detailed statements of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

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We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should any circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. In order to be entitled to the benefits of our Protective Policy, you need only to include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date and any unsatisfactory transaction, with proofs thereof, and within one month from the date the advertisement appears, in order to take advantage of the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

MORE ABOUT LARGER FARMS

The tendency of the times is towards larger farms. Everywhere the well-to-do and progressive farmers are becoming more prosperous, buying more land; and the unprogressive, the indifferent ones, are travelling another road, and eventually the tendency is for them to sell out and attempt other lines of endeavor or work for their more successful brother farmers. Gradually but certainly farming is being placed beyond that of being a poor man's business.

If farms are to remain as we all would have them, small, well-tilled and intensely productive, under a multitude of smaller capable heads, we must develop more business capacity amongst us as a class or some of us will not be able to keep the pace and compete against better equipped neighbors who are after more acres and can do things on a larger scale.

Slowly educational machinery is be-

ing developed and set in motion having in view the educating of the class of farmers who find it difficult to own and manage their small farms and compete in the open markets with the farmers of larger affairs. Our district representatives working under the Department of Agriculture in several of the counties of Ontario, and the whole machinery of agricultural education as we have it to-day, are tending to right matters; but notwithstanding all effort that heretofore has been put forth, the agrarian revolution now so marked in the States and becoming more and more evident here, whereby the farmers are becoming larger, is bound to succeed. It will require much more effort on the part of our agricultural educationalists than has yet been put forth to stem the tide.

The working out of this tendency towards larger farms will give more scope for our brightest and best boys to demonstrate their ability on the farm and to obtain for them the returns their talents deserve. Nevertheless it involves a grave danger, since the principle is closely akin to that which has proved so disastrous in connection with the operation of trusts and combines. Let us strive for smaller farms, well filled by individual owners, but let us not overlook this tendency towards larger farms and fail to develop our people by righting our tariffs, widening our markets and readjusting our economic laws for the benefit of the masses so that our ideal may be more easily realized.

RECIPROCITY AND GOOD FARMING

Will reciprocity, by making it possible for us farmers to get better prices for our raw material such as hay and grain, be an inducement to us to sell more of our raw produce rather than feed it on the farm? On another page of Farm and Dairy this week Mr. E. F. Osler, Halton Co., Ont., urges that such would be the effect of reciprocity. Did we believe that reciprocity would induce farmers to ship more of their raw material instead of feeding it on the farm, which latter practice Farm and Dairy has been advocating for years, we would not be supporting reciprocity as we are.

But reciprocity will not have this effect. The tariff reductions on the finished articles such as butter, cheese, beef and pork which are so important, in fact more so, than the reductions on the raw material, and we farmers will have the same inducement to feed the raw material on the farm as we have now. Comparisons of United States and Canadian prices for these finished products, as given in Farm and Dairy from time to time, show that the United States prices for all of these products are higher than the Canadian. Will not we farmers therefore be encouraged to go in even more extensively than we now do for the more intensive lines of farming as we will be sure of a wider and better market?

Another objection to reciprocity urged by Mr. Osler is that for a higher price we will ship our grain to the United States mills, thereby export-

ing from the country soil fertility and the valuable by-products such as bran, which are needed in our own country. Reciprocity does not mean that our wheat will have to go to the United States to get a better market, but that our own millers will have to pay a higher price for Canadian wheat in competition with American buyers, and this, as we well know, they can afford to do. Reciprocity will not hinder the development of intensive farming. Reciprocity will encourage good farming by making it more profitable.

A STEP AHEAD FOR DAIRYING

The officials of the Dairy Division at Ottawa are to be congratulated on the progressive action that they have taken in purchasing for experimental work the creamery at Bromo, Que. In past years the Dairy Division has been hampered in their investigation work by lack of a creamery of their own. During the last two years, Mr. Geo. H. Barr has been carrying on a experimental work on "The Care of Cream," and one of the greatest hindrances to the success of the experiments was that the work was done in a privately owned factory, thereby rendering the most careful work impossible. This difficulty has now been overcome.

The new building to be erected at Bromo will be a model creamery and serve as an object lesson for the dairymen of the district, while the investigations carried on will be for the benefit of the whole butter making industry. This action on the part of the Dairy Division is a step in advance and one that will meet with the approval of creamery men everywhere. This action will be the more appreciated just now in view of the fact that the step was decided on early last winter before an election was even thought of.

EDUCATION THAT IS PRACTICAL

Economists who have made a study of the conditions that have made Denmark one of the most progressive countries in the world give testimony to the influence that the Danish system of technical education has had in the regeneration of that country. At the close of the Franco-Prussian War, stripped of the best of her provinces, having practically no capital, a small population, and land of a character such as we in Canada would think of only as sheep pasture, the outlook for Denmark was dark indeed. To-day, Denmark with an area less than the small province of Nova Scotia, exports \$100,000,000 worth of dairy produce, and the per capita wealth of her citizens ranks high among European countries. And the basis of this wonderful regeneration was a practical system of education. Agricultural high schools are found in all rural districts and practically all of the farmers of Denmark have the advantage of scientific training along agricultural lines.

Is our system of education in Ontario and in the other provinces of Canada such as to give rural students a greater enthusiasm for farm work or a better knowledge of the occupation that will be their life's

work? Truly it is not. It is regrettable that our educational system, drawn up by professional men who have no interest in the farm, has been framed with the object of assisting the small percentage of the population—not more than five per cent.—whose object is one of the so-called learned professions, law, medicine, theology, etc. Students have been taught to regard these professions as an avenue of escape into the case of professional prominence, from the toil of industrial life. The way in which the great majority of our population must earn their living has been left just as it is.

But the tide is now turning. In recent years prominent men have begun to realize the necessity of technical education, and considerable sums have been expended on the establishment of technical colleges. Even these, however, reach but a small proportion of the men who need a technical training. Why cannot some of this training be given in the public schools? Our school readers can be made use of to good advantage. Would not lessons in the life habits of economic insects, how plants grow, the nature of our soils, and the principles of animal nutrition, be more instructive than tales about elephants, kangaroos and cuckoos? The object of the reader is to teach spelling and grammatical precision. Why not inculcate into the pupils along with this, information that will be of direct practical value in their life work? It can and ought to be done.

RECENT MARKET COMPARISONS

Comparative market quotations are the only reliable indication of what will be the probable effects of reciprocity on the price of Canadian farm produce. For years the average prices in almost all lines of farm produce have been higher in the United States than in Canada, and this rule holds good at the present time.

A recent comparison of quotations on the Buffalo and Toronto markets shows that when prime steers were selling in Toronto at \$5.85 to \$6.25 they sold on the same day in Buffalo for \$6.85 to \$7.20. Last week when the top price for butcher cattle in Toronto was \$6.10 in Buffalo it was \$6.85. Veal calves bringing \$4 to \$8 in Toronto would have sold for \$5.50 to \$8.50 on the Buffalo market. Our fine bacon hogs were selling in Toronto for \$7.65 to \$7.75 when hogs of inferior quality were selling in Buffalo at \$8.00 to \$8.25, and the market there is unusually close to the Canadian market, the average price running sixty-five cents to one dollar higher than the Canadian.

In grains we stand to gain also. Barley quoted at sixty cents in Toronto sold in Buffalo at ninety-cent to \$1.15. Peas and beans are always much higher in Buffalo than in Toronto.

With facts such as these before us it is apparent that we are not expending ourselves to danger by giving to the United States farmers the same advantages on our market that we have on theirs. We farmers stand to gain by reciprocity.

Send

Silos are a breeding their with its gring the pizymal having consoling in ally the entirating the c when prices re. It is a give their own ations that seasons. not as minor outh having set of con lit economically farming and gils. The silos are point is relation to no silo for truthfully be air-tightness values to be a Some written pression that

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The duty valued at a head on of the best h of the Eastern The United ter that can

is in the best is very brief, giving silage in dis granted hats— many farmers It does not require special set of a psychological surplus. Corn for the silo past the roast corn is cut to for silage. The rule is to cut if the corn is to be cut farming do sell to cut-and-sometimes com and a sort of means doing it rapidly as form permit.

Let the owner of a silo be dis idea that if he at a certain t secure a superi gone. If he ca silo to-day, to something happy day is coming. tination is not assumed that it well and at the reasonably pos some weeks d high value can farms. We know Michigan in wh

Sense about Silos

Silos are a form of insurance, protecting their owners against drought with its grassless pastures, insuring the payment of nutritious, palatable feed upon demand to live stock, conserving in digestible form practically the entire corn plant, and warranting the cash sale of hay and grain when prices are particularly attractive. It is a wonderful grip that silos give their owners on the difficult situations that arise in unfavorable seasons. They should be considered not as minor conveniences, nor yet as costly luxuries, only when a peculiar set of conditions exist. They are economically indispensable to stock-farming and dairying wherever corn grows. The kind, size, and form of silo are points to be carefully studied in relation to conditions. There is no silo for which strong claims cannot truthfully be made. Durability and air-tightness are the uppermost values to be sought.

Some writers have created the impression that the time at which corn

outdoors until January, and in an other until March, was converted into silage, which went into the silo with a barrel of water to the ton. According to the testimony of the user, the silage gave as good results as that which was put up at the usual season. In these cases the corn had been cut just before frost with a corn binder, and set up in shocks, each of which consisted of from thirty to thirty-five bundles. It remained in the shock until the first filling of silage had been fed, when it was hauled from the fields and siloed.

Success in silaging depends more upon a man's resource of mind than upon his doing this or that at a time fixed by chemistry, authority or the moon. There is great room for use of sense in building and filling silos and using silage.—Breeder's Gazette.

Experience in Cow Testing

A. D. Murray, King's Co., N.B.
My experience in cow testing started on April 22nd, 1910. The previous

HOW RECIPROCIITY WILL AFFECT HORSE PRICES

Reciprocity will increase the selling price of Ontario horses. It will give a great impetus to horse breeding in this country. The following market quotations tell why:

GOOD HEAVY DRAUGHTERS

	Aug. 12, '11	May 18, '11	Mar. 18, '11	Feb. 18, '11
Toronto	\$200-\$275	\$200-\$250	\$230-\$350	\$250-\$350
Boston	\$300-\$425	\$350-\$475	\$325-\$475	\$300-\$450

MEDIUM HEAVY DRAUGHTERS

Toronto	\$175-\$225	\$200-\$250	\$200-\$250	\$200-\$250
Boston	\$200-\$325	\$250-\$350	\$235-\$350	\$225-\$300

AGRICULTURAL HORSES, GOOD

Toronto	\$160-\$225	\$160-\$225	\$160-\$225	\$160-\$225
Boston	\$150-\$220	\$200-\$250	\$200-\$275	\$190-\$275

AGRICULTURAL HORSES, FAIR

Toronto	\$100-\$150	\$100-\$150	\$100-\$150	\$100-\$150
Boston	\$100-\$150	\$100 up	\$150 up	\$100 up

The duty on Canadian horses going into the United States is \$30 a head on horses valued at \$150 or less, and 25 per cent. on horses valued at over \$150. With this duty removed, we will have access to the best horse market on the American continent—the cities of the Eastern States. The advantage of such a market is self evident. The United States Government has given us an opportunity to enter that market. We have only to take it.

is in the best condition for siloing is very brief, and that the art of making silage is difficult. Such unwarranted hair-splitting has deterred many farmers from building silos. It does not require a scientist, a particular set of favorable conditions and a psychological moment to guarantee success in making silage. Corn for the silo may be cut any time past the roasting-ear stage. More corn is cut too green than too ripe for siloing. The most widely accepted rule is to cut a little sooner than if the corn is to go into shock. Practical farming does not always lend itself to cut-and-dried programmes; it sometimes compels delays, hurries, and a sort of recklessness—which means doing things as well and as rapidly as formidable circumstances permit.

Let no owner or prospective builder of a silo be disturbed by the floating idea that if he does not cut his corn at a certain time his chances to secure a superior grade of silage are gone. If he cannot begin filling the silo to-day, to-morrow will do; if something happens to-morrow, a third day is coming. Inexcusable procrastination is not to be tolerated. It is assumed that the work he has done will stand at the right time if that is reasonably possible. But there are several weeks during which silage of high value can be made on cornbelt farms. We know of one instance in Michigan in which corn that had been

autumn I had bought two cows at a sale in Sussex. They were wintered fairly well and both freshened on the same day. As I am by trade a blacksmith, milking was done rather late in the evening, and a neighbor who lived just across the way used to be around when I was milking. I being inexperienced in farming, asked a good many questions. He asked him one evening which, in his opinion, was the better cow of the two, as to me, they both looked fine and had splendid udders. He said, "By all means do No. 2." I then asked another farmer, and he went even further. He said that No. 1 was no good—that she had many poor points for a dairy cow.

It was then that my experience in cow testing began. I weighed three times a month, and sent the results to Ottawa.

No. 1, from April 22nd, 1909, to December 31, 1909, gave 6,407 lbs. of milk while No. 2 (the only cow that was any good) gave 4,475 lbs. in the same time. This experience opened my eyes as to the accuracy with which cows could be judged by their appearance.

Why farmers do not all take up cow testing is more than I can understand. I started to think about cow testing when I was working at the Blacksmith trade in a rural section. Farmers coming to the shop were continually asking each other how many cows they were going to milk



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that season. I began to wonder if all of these cows paid. Frequently I got into arguments with farmers who suggested that "How much do your cows give?" was a much more important question than "How many cows have you?"

We farmers have a golden opportunity for the improvement of our dairy herds if we only take advantage of the scales and tester.

This year I have seven cows under test, and next year about 12 heifers will freshen. They will all be tested, and the poor ones sent to the shambles. I have recently purchased two pure bred Holstein cows and a pure bred bull. I will not be satisfied until I reach the 10,000 lb. cow. This, I believe, can be done in this province of New Brunswick.

A Farmer Opposes Reciprocity

Editor, Farm and Dairy.—Re your editorial, "Our Stand on Reciprocity" in Farm and Dairy of August 10th last, may I ask you to tell me which farmer is doing the best work for himself and his country—the one who sells his grain and hay and his other raw material to some one else to feed, or the one who feeds his own raw material and sells only the finished product—beef or butter? Any farmer worthy of the name can easily answer this question, and any one who thinks at all can surely see that the name of the better farmer in this case is "America," and the poor one who sells what he should feed is young "Miss Canada," who is going to ruin the fertility of her farm and hand over the produce for the Yankee miller to grind. She will see her mistake when she will have to buy back her own bran and shorts from United States after the United States miller has reaped the profits of the grinding, and the American workman has

been paid the wages that should have stayed in Canada.

Now, sir, you say, "The only far-mer who is opposing it (reciprocity) are those who are reading the straight party press, and who have never taken any part in an open discussion of the question." Now, I for one, am a farmer—it is my whole occupation—and you know me—yet I do not read the straight party press, or if I do I read it in both parties. I do not want to be too blunt, but if you do not know any farmers who are against this pact for other reasons than the straight party press, I would suggest you get an introduction, for there are lots of them.

I should be glad to see this letter published. Right or wrong, there can not be too much discussion on so important a question before the election.—E. F. Oster, Hailton Co., Ont.

Forestry.—The report of the Canadian Forestry Convention at Quebec has just been issued, and makes a volume of 162 pages, of addresses, papers and discussions by Canadian and United States authorities on forestry and lumbering. All parts of Canada are embraced in the report, and all phases of the subject, commercial, educational, administrative and protective are dealt with. The resolutions passed and changes suggested in the laws are included. Persons interested may receive a copy free upon application to the secretary, Canadian Forestry Association, Canadian Building, Ottawa, Canada.

We have taken Farm and Dairy for over six years and feel that we have been greatly benefited by it. We would not like to have it be without it in our home.—W. H. Wagner, Elgin Co., Ont.

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to act as subjects for discussion. Address letters to The Cheese-Maker's Department.

Handle Curds Properly

D. J. Cameron, Victoria Co., Ont.

When acting as an instructor at the Dairy School at Kingston, I have found that young makers will cook their curds very nicely, but lack of attention from then on reduces the quality of the cheese. The average cheese maker will handle his curds very well until he has them in the whey. It is then that he falls down. There is no need for failure at this point. When the vat is ripe it is well to give it a few minutes to cool off. Covering the vats while setting is a good idea. It prevents cooling, and the whey is usually a little more perfect. When the curd is cooked, however, don't give it enough attention in the afternoon.

No specific directions can be given as to how to handle the curds; all depends on the curds. We should aim, however, to turn the curds in the afternoon sufficiently to get them matured as evenly as possible.

An Outsider to Make Test

"I have always advocated that the test be made by someone outside of the factory," said Mr. G. C. Gillespie at the last meeting of the Peterboro Cheese Makers' Association. "It would relieve the cheese maker of what is now extra work, and would take suspicion out of the minds of the patrons. I believe that the cheese and creamery men in this section would be willing to pay an outside man to do the testing. We have at least 25 creameries in this section, many paying by test in the Peterboro section. It would keep one man busy all the time to test for these factories, and would well afford to pay a man to do the work.

"One of the difficulties would be to have the samples tested at the end of each month, as the patrons like to have their returns immediately. I would suggest that we could work out some system of having the months at each factory end at different dates. Such a system could easily be worked out, and the hiring of an outside man to do the work would be a most decided step in advance."

An Opinion on Middlemen

"We cheese makers and dairymen generally have a tendency to place the blame for all our ills in the line of cost, prices, etc. on the middleman," said Mr. C. W. Norval, Dairy Instructor in Dundas Co., Ont., to an "I" here on the dairy business from the middleman's standpoint, however, as I worked with one for several years, and their lot is not an easy one.

There are only two middlemen in the business now that handled our cheese 24 years ago. Every now and then, we hear of a cheese buyer

who has failed. A banker informed me only recently that the produce men are not rated high. In my opinion they are doing our business for us quite as cheaply as we would do it for ourselves.

"We are not cheated on claims for inferior cheese," continued Mr. Norval. "I know that time and time again I have expected rebates for inferior quality, but never came. Much poor cheese has been sold to buyers on the bare chance of getting their money out of it, or even of losing a little. They know well that when they do not get the price as they should, they would not be able to buy on that board again.

"All women make good butter; similarly all men make good cheese, and they object just as heartily to a cut as does the lady at an instrument that her Lutter is not first-class. I have seen lots of cheese, however, that certainly was not first class, and they went through without a rebate. We should have a little more sympathy for the middleman."

Mr. R. A. Thompson's Cheese Making Methods

The system of making cheese as practised by Mr. R. A. Thompson of Woodville, Ont., who has received awards for several years at Toronto and other leading exhibitions on his cheese may be briefly described as follows: He uses the acidimeter and the whey is usually 12 per cent. acid, about 16 per cent. acidity. The agitators are then taken out and the curd stirred occasionally to keep it loose so that each cube of curd will firm individually. The curd is stirred at about 175 per cent. acidity with the whey half down in the vat. The whey is drawn with a large siphon so that the curd is taken out of the whey in three minutes. The curd is dipped into the sink the curd is stirred dry. Emphasis is laid on this point. If, after stirring until well dried, the curd is found gathering moisture it is again broken up and finely finally piled. The curds are stirred dry enough so that at dipping, from the six vats together, not enough moisture will reach the gutter would drain off the curd from milling to salting.

The curds are well flaked before milling and turned about every 10 or 15 minutes. Curds for soft cheeses are milled lengthwise. The general run of cheese usually however is milled the short way in order to be more easily handled. Curds milled the short way require less attention in the matter of stirring than when milled the long way and the results are practically the same. The curds are kept wet stirred and milled. Curds are milled about 2 1/2 hours after dipping. The curds are matured well after milling and before salting. Salt is added in less than two and half hours after milling and is often left longer.

The 1910 exhibition cheese was salted at the rate of 2 1/2 lbs. a thousand. At the time of salting the curds are practically free of moisture, there being none dripping from the curds. Often at this stage enough dry capacity to be secured to make a test for acidity. The average at salting when tests can be secured is 1.12 per cent. All the cheese remain in the hoops 36 hours, or from the evening when put in until the second morning after. The press room is equipped with two sets of presses and hoops. After being taken from the hoops the cheese are left one day in the small drying room before being put in the cool curing room, where all exhibition cheese are kept at a temperature of 58 to 59 degrees to 60 degrees except June cheese which are held at a lower temperature after being sufficiently cured. The cheese are shipped to the Shows. No difficulty has been found with curd developing in this cool curing room.

The Force of a Good Example

"It is wonderful what an influence the cheese maker can have in improving the quality of the milk delivered at his factory, just by keeping himself and his surroundings neat and clean," said Mr. J. F. Singleton of Kingston, recently, while in conversation with an editor of Farm and Dairy. "In a factory in which I have an interest we hired a new maker and things began to change for the better immediately. The factory was always clean, and the maker himself when he came on the weighing stand was always clean shaved and impressed the patrons with the idea that such a man would have nothing but clean milk. This maker did not say very much to the patrons about the quality of their milk. He merely practised cleanliness and they had to follow his example."

Charity should begin at home; likewise cleanliness. A maker may tell his patrons ever so clearly the evil results that follow from keeping dirty or rusty cans, or of the poor cheese which will result from improperly mixed milk, but if he does not practise cleanliness himself and show the patrons that he is doing his part to produce a first class product, his words will be of none effect.

"It is a hardened patron indeed who will continue week after week, and year after year to bring poor milk to a clean maker. Of course, if patrons do behave in this way the maker is then justified in refusing to have anything more to do with his milk. If on the other hand, the factory and its surroundings are dirty, the maker is in a poor position to refuse dirty milk."

The Influence of the Maker

The keen competition that Canadian cheese must meet on foreign markets renders the matter of quality in our cheese more important than ever. In days gone by when our cheese supplied 80 per cent. of the amount consumed in Great Britain, and had little or no competition, the quality was not so important, since almost any kind of cheese would sell. Through factory inspection and now through makers' certificates we in Ontario have developed a class of makers who can turn out the finest cheese which get good raw material. One of our dairy inspectors, Mr. R. W. Ward of Peterboro county, says that 80 per cent. of the defects in our cheese originate through the improper

care of milk on the farm. It is apparent that our makers and instructors have here some work to do. It has been asked: Can the maker influence the quality of the milk that is received at his factory? Our best cheese makers say that they can. Mr. L. A. Zuffelt, Superintendent of the Kingston Dairy School, speaking recently on this subject, said: "Give me the poorest factory in the poorest section of Canada and by putting in it a good maker, one who has both tact and backbone, I will guarantee that he will soon improve both the factory and the milk received to such an extent that he can turn out finest cheese."

Our dairy instructors in Ontario cover large territories. It is impossible for them to call on all the patrons and give instruction on the care of milk. The cheese maker, however, from the weighing stand, through the rural phone and by post, is constantly in touch with all of his patrons. It is within his power to completely transform the quality of milk received at the factory. The best maker is the one who is not only a cheese maker but an educator as well. The cheese maker by showing his patrons how to take better care of their milk adds to his own value and his work will be a boon to the dairy industry.

Are we up-to-date?—Surely Ontario cheese makers are not paying for milk simply by weight. Professor Dean, of Guelph, threshed this thing out very thoroughly a long time ago by taking both the per cent. of butter fat and the casein factor into consideration. Last year Professor "Hart," of Wisconsin, developed the "Hart" casein test. This in connection with the "Inabook" tester will give better and more accurate results than the old method of weighing.—W. J. Elliot, Strathmore, Alta.

Paraffining Cheese—The shrinkage in the weight of cheese in storage is an important item in the cost of carrying it. The shrinkage of cheese while in storage at any temperature may be almost entirely prevented if the cheese are coated with paraffin wax when they are 10 days or two weeks old. It will pay to "paraffin" any cheese which are to be stored for one month or more. The practice of paraffining also prevents the growth of mould on the surface of the cheese which may be troublesome if excessive.—J. A. Ruddle, Dairy Commissioner, Ottawa.

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30 Yrs

OUR FARM HOMES

HE that brings sunshine into the lives of others, cannot keep it from himself.

The Second Chance

(Copyrighted)

NELLIE L. MCCLUNG

Author of "Sowing Seeds in Danny"

(Continued from last week)

THEN Mr. Steedman, Tom's father, a big, well fed man, who owned nineteen hundred acres of land and felt that some liberty should be allowed the only son of a man who paid such a heavy school-tax, took charge and said, fixing his eyes on Bill Cavers, his poverty-stricken tenant: "Let us see what Libby Anne has to say. I should say that Libby Anne's testimony should have more weight than all these others, for these young ones seem to have a spite at our Tom. Libby Anne, did Tom strike you a purpose?"

"Be careful what you say. Libby Anne," her father said miserably, his eyes on the ground. He owed Steedman for his seed wheat.

Libby Anne looked appealingly at Bud. Her eyes begged him to forgive her.

Mr. Steedman repeated the question.

"Speak, Libby Anne," her father said, never raising his eyes.

"Did Tom hit you a purpose?"

Libby Anne drew a deep breath, and then in a strange voice she answered: "No."

She flung out the word as if it burned her.

Libby Anne was a pathetic figure in her much-washed derry dress, faded now to the color of dead grass, and although she was clean and well-kept, her pleading eyes and pale face told of a childhood that had been full of troubles and fears.

Bud stared at her in amazement, and then, as the truth flashed on him, he packed up his books, hot with rage, and left the schoolhouse. Bill Cavers hung his head in shame, for though he was a shiftless fellow, he loved his little girl in his better moments, and the two cruel marks on her thin little shins called loudly for vengeance; but a man must live, he told himself miserably.

When Bud left the school Libby Anne was in her seat, sobbing bitterly, but he did not give her a glance as he angrily slammed the door behind him.

Two days after this, Bud was drawing wood from the big brush north of the Assiniboine, and as he passed the Cavers home Libby Anne, with a thin black shawl around her, came running out to speak to him.

"Bud," she called breathlessly, "I had to say it. Dad made me do it, 'cos he's scart of old man Steedman."

Bud stopped his horses and jumped down. They stood together on the shady side of the load of poles.

"That's all right, kid," Bud said. "Don't you worry. I liked lickin' him."

"But Bud," Libby Anne said wistfully, "you can't ever forget that I lied, can you? You can't ever like me again?"

Bud looked at the little wind-blown figure, such a little troubled, pathetic face, and something tender and manly stirred in his heart.

"Run away home now, Libby Anne," he said kindly. "Sure I like you, and I'll wallop the daylight out of anybody that ever hurts you. You're all right, Libby Anne, you bet; and I'll never go back on you."

rule, and in this Aunt Kate rendered valuable assistance, that no one would be excused from school on account of sickness unless they could show a coated tongue, and would take a tablespoonful of castor oil and go to bed with a mustard plaster (this was Aunt Kate's suggestion), missing all meals. There was comparatively little sickness among the Watsons after that.

Aunt Kate was a great help in keeping the household clothes in order. She insisted on the children hanging up their own garments, taking care of their own garters, and also she saw to it that each one ate up every scrap of food on his or her plate, or else had it set away for the next meal. But in spite of all this Aunt Kate was becoming more popular.

This relieved of family cares, Pearl had plenty of time to devote to her lessons, and the progress she made was remarkable. She had also more time to see after the moral well-being of her young brothers, which seemed to be in need of some attention—at least she thought so when Patsy came home one day and signified his intention of being a hotel-keeper when he grew up, because Sandy Brandon had a diamond as big as a marble. Patsy had the very last Sunday quite

and this to her was a very bitter sacrifice.

One night, when everyone else was asleep, even Aunt Kate, Pearl fought it all out. Every day was bringing fresh evidences of the evil effects of idleness on the boys. Jimmy brought home a set of "Nations" and offered to show her how to play Pedito with them. Teddy was playing on the hockey team, and they were in Brandon that night staying at a hotel, right where "smell of the liquor" Pearl thought. The McSorley boys had stolen money from the restaurant man, and Pearl had overheard Tommy telling Biggey that Ben McSorley was a big fool to go showing it, and Pearl thought she saw from this how Tommy's thoughts were running.

All these things smote Pearl's conscience and seemed to call on her to renounce her education to save the family. "Small good your learning'll be to ye, Pearl Watson," her brothers are behind the bars," she told herself bitterly. "It's not so fine ye'll look, all dressed up, off to a fresh" convention in Brandon," reading a paper on "How to Teach Morals," and yet own brother Tommy or maybe Patsy, down time in the Brandon jail! How would ye like, Pearl, to have some one tap ye on the shoulder and say, 'Excuse me for your visitor's day at the jail, and yer brother Thomas would like ye to be after stepping over. He's a bit lonesome. He's Number 280.'"

Something caught in her throat, and her eyes were too full to be comfortable. She slipped out of bed and quietly knelt on the bare floor. "Dear God," she prayed, "ye needn't say another word. I'll go, so I will. It's an awful thing to be ignorant, but it's nothin' like as bad as bein' ye are. No matter how ignorant ye are ye can still look up and ask God to bless ye, but if ye are wicked ye're dead out of it altogether, so ye are, so I'll go ignorant, dear God, to the end o' my days, though ye know yourself what that is like to me, or I'll try never to be feelin' sorry or wishin' myself back. Just let me get the lads brought up right. Didn't ye promise someone the heathen for their inheritances? Well, all right give the heathen to that one, who ever it was ye promised it to, but give me the lads—there's seven of them, ye mind. I guess that's all. Amen."

The next day Pearl went to school as usual, determined to make the best use of the short time that remained before the spring opened. All day long the path of knowledge seemed very sweet and alluring to her. She had been able to compute correctly how long eighteen cows could feed on a pasture that twenty-six horses had lived on thirteen days last year, the grass growing at night, and the cows eating as much as one horse; the literature they were studying "The Lady of the Lake" and Alambert's description of the fight had interested her with its stirring enthusiasm. Knowledge was a passion with Pearl; "meat and drink to her," he mother often said, and now how she to give it up?

She sat in her seat and idly watched the children at the blackboard. Outside racing down the stairs. Outside children called gaily to each other, the big doors slammed so hard the windows rattled and at last all was still with that awful stillness of a deserted school.

It was a warm day in March, a glorious day of melting sunshine when the rivers begin to think of spring, and the snow below the snow the little flowers smile to the sun.

(Continued Next Week)

Buy Farm and Dairy Patterns.



Rear View of a Comfortable Ontario Farm House

The farm house, the residence of Mr. C. Rat, of Perth Co., Ont., is here shown. Note how neat it is and how well everything has been kept in repair.

The bitter wind of January came down the Souris valley, cold and piercing, and cut cruelly through Libby Anne's thin shawl as she ran home, but her heart was warmed with a sweet content that no winter wind could chill.

CHAPTER VI.

PEARL'S UNRULY CONSCIENCE

We turn unblest from faces fresh with beauty,

Unsoftened yet by fears,

To those whose lines are chased by love and duty

And know the touch of tears.

—Ella Wheeler Wilcox.

The Watson family attended school faithfully all winter. Pearl took no excuses from the boys. When Tommy came home bitterly denouncing Miss Morrison, his teacher, because she had applied the external motive to him to get him to take a working interest in the "Luke-Daisy-Kitty" lesson, Pearl declared that he should be glad that the teacher took such a deep interest in him. When Bugsey was taken sick one morning after breakfast and could not go to school, but revived in spirits just before dinner-time, only to be "took bad" again at one o'clock, Pearl promulgated a

made up his mind to be a missionary. Pearl took him into her mother's room, and talked to him very seriously, but the best she could do with him was to get him to agree to be a drayman; higher than that he would not go—the fleeshpots called him!

Jimmy became enamored of the railway and began to steal rides in box-cars, and once had been taken away from bed to walk back five miles. It was ten o'clock when he got home, tired but happy. He said he was "hungry enough to eat a raw dog," which is a vulgar expression for a little boy nine years old.

Even Danny began to show signs of the contamination of the world, and came swaggering home one night feeling deliciously wicked smoking a liquor pipe, and in reply to his mother's shocked remonstrance had told her to "cut it out."

Those things had set Pearl thinking. The boys were growing up and there was no work for them to do. It was going to be hard to raise them in the town. Pearl talked it over with Mr. Burrell, the minister, and he said the best place to raise a family of boys was the farm, where there would be plenty of employment for them. So Pearl decided in her own mind that they would get a farm. It would mean that she would have to give up her chance of an education,

The Upw

The Quality

If thou can't be possible to him t mark. 9-23.

If we have fear anything, it is an an lacking in faith God and fear cannot hearts at the satio as our faith fails, or apprehen fear and power. We faith our fears dep have we found this

It was Christ wh things are possible only believe. By meant, all things t with the Divine w brought out plainly he said, "And this that we have in Hi anything according search us: And if fear us, whatsoever that we have the desired of Him."— "But," perhaps yo "all. How are we weak in accordance simply by reading me in it and by stance, we are told that if any of us lack ask God for it and





Farm Work vs. Athletics

The farm is the finest training ground in the world. The splendidly equipped gymnasiums and expensive athletic grounds that are found in our cities are not to be seen all the country nor are they needed. In the course of a day's work the farm boy is engaged in probably half a dozen to a dozen different kinds of work, which exercise and develop all the muscles of the body. The efficiency of the farm as a gymnasium is proven by the product that nature's gymnasium turns out. Everywhere the country boy of the country man is recognized as superior in physical development to the man who has got his training in a city gymnasium. We city boys need not envy the city boys their facilities for physical development.

Stay-with-it-iveness in athletics is of almost equal importance with physical development. A man who can run five miles must not only have strong wind and strong muscles, but he must be able to stay with the game in spite of fatigue when the less determined ones are dropping out. The continuity of the natural nature for a livelihood develops in the country boy that same persevering quality that is such an important part of the athlete's make-up. The boy, therefore, who spends his early life on the farm has an ideal athletic training. Perhaps this is why in our colleges and city clubs the boys who have spent their early years on the farm are the best all round athletes.

Physical instructors tell us that the athletic training given to city youths is not for their immediate enjoyment, but to develop in them a strong physique and the capacity to resist disease and the effects of a successful business man. Carrying the comparison between life on the farm and life in an athletic club through to the business man and the rest of that training there, we find that the farm has again proven its efficiency. In all walks of life the most successful men were once boys on the farm.

Again I say we need not envy the city boys the training that they are getting in their gymnasiums, athletic grounds, and other artificial surroundings. Our country boys working next to nature are getting a better training; one that will stand us in better stead in the business world whether that be on the farm or in the city.—A Country Boy.

Kitchen Economy

Hang up the broom! It will last longer, and sweep better, if properly cared for, and if always in place, is easily found.

When through using the scrub-brush, wash, rinse, and put to dry, bristle side down. Treated in this way it is always clean and is more durable.

The period of usefulness of the vege-

CAPABLE OLD COUNTRY DOMESTICS

carefully selected, arriving Sept. 25th and weekly after. Apply now. The Guild, 71 Drummond Street, Montreal, or 14 Grenville Street, Toronto, Ont.

table-brush is lengthened by half if cared for in the same manner. Mops and all cloths used in cleaning should be washed in clean water, and hung in such a manner that they will dry quickly. They will then be clean and sweet when again needed.

Wash the dish-cloth in clean soapy water, rinse, wring dry, and hang in such a manner that it will dry quickly. Hang out-of-doors if possible.

An oiled kitchen floor, whether of hard or soft wood, is much more easily cleaned than an unoiled floor.

An oiled floor is more durable than an unoiled one. Use linoed oil; heat it and apply to the floor with an old woollen cloth. Rub the oil in well. Cover the floor with papers to prevent the oil tracking if the room must be



The Country Boys Excite

Our illustration shows Mr. Clair Davis, Welland Co. Ont., and his two cups which he won in two races, the larger cup for a 5-mile run (time, 23 minutes), the smaller cup for a mile race run in five minutes. The lad writes Farm and Dairy that he helps his father on 150 acres of land, but finds time for training after his day's work is done. "Truly," where there is a will there is a way."

the used while the oil is still fresh. If the oiling is done late in the afternoon or at night, the papers may be removed in the morning and the floor washed with cold water. If no washing of the floor is done for several hours after oiling, more of the oil will soak into the floor, and it lasts longer. Floors are much more easily cared for, and look better, if oiled once a month.

The Sanitary Privy

Of great importance to human life is good health, which cannot be preserved if the sanitary conditions in and about living quarters are bad. Among worst conditions to be found about a home is a soil that has become polluted. The Secretary of Agriculture, Washington, D.C., has published a bulletin which treats of such soil pollution and certain simple plans for avoiding it. Soil pollution by human excreta endangers the health of a family. It is possible by the expenditure of a few dollars for a sanitary privy to prevent this soil pollution, enabling the family to live, year after year, on the same premises, without endangering its members' health.

A number of widely prevalent diseases have been spread by means of polluted soils, simply because the facts have not been widely known. Full information, with illustrations, estimates of cost, and plans for constructing the sanitary outhouse, is contained in the pamphlet. Directions are given as to how to keep a privy sanitary and how to properly dispose of night soil.

"In the United States about 400,000 persons suffer from and about 35,000 die from typhoid each year; over 2,000 persons have hookworm disease, thousands of these deaths and many thousands of these cases of disease might be prevented by the use of sanitary privies."

"Although there may be no soil pollution upon one's own premises, his children may be exposed to all the dangers at the schools, which they attend, and the entire family may be exposed when they attend church, unless the church premises are provided with these sanitary conveniences. Lack of sanitary privies on neighbors' farms may also be responsible for cases of typhoid and infections on farms which are provided with proper outhouses, because disease germs may be carried for considerable distances by flies, by animals, by the feet of persons, by wagon wheels, and by drainage from one farm to another."

"In view of these well-established facts, it is evident that among the highest duties that a citizen farmer, or dweller in a country village, is not only to have a sanitary privy on his own premises, but to insist that the pollution of soil be prevented throughout the entire neighbourhood."

THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request, to the Household Editor, Farm and Dairy, Peterboro, Ont.

CHOCOLATE FUDGE

Two cupsful of sugar, one and one half cupsful of milk; two squares of unweetened chocolate. Lutter the size of a walnut, a pinch of salt. Boil until it mounds in cold water. Add a teaspoonful of vanilla. Boil until rather thick and pour in buttered tins.

SCOTCH SHORTCAKE

A quarter of a pound of butter, two ounces of egg, half a pound of flour, and a small pinch of baking powder. Mix the ingredients to a stiff paste. Roll out not too thin, cut into cookies and bake slowly in a moderate oven. Top each with a candied cherry or a blanched almond.

FEATHER CAKE

One pound of sifted flour, one teaspoonful of ginger, one teaspoonful of baking powder, one large cupful of molasses and a pinch of salt. Mix in the mixed ingredients with milk to attain the desired consistency and bake in muffin tins in a moderate oven.

COCOA PUFFS

Four ounces of butter, four ounces of flour, four ounces of granulated sugar, two eggs, a pinch of baking powder. Stir the butter and sugar together for about five minutes until it is well creamed, add one egg and part of the flour, and after it is well blended, the other egg and the rest of the flour. Flavor with enough cocoa to make it a rich color. Drop this mixture into muffin tins and bake for about a half hour.

GINGER NUTS

Three cupsful of flour, one cupful of brown sugar, one-half cupful of butter, two level teaspoonfuls of ginger, half a teaspoonful of carbonate of soda, two cupsful of molasses. Mix all the dry ingredients together, work in gradually the butter and then the molasses, stirring with a spoon. Take a small piece of the mixture, which will be rather sticky, and roll it into a little ball between the palms of the hands. Drop these balls on buttered tins and bake for about ten minutes in a moderate oven.

The Sewing Room advertisement featuring various sewing patterns for children's coats, aprons, skirts, blouses, and gowns, with detailed descriptions and pricing.

OUR FARM Correspondence PRINCE EDWARD KINGS CO. S. MONTAGUE, AUG. 24, 1914. Various notices and advertisements from the farm community.

OUR FARMERS' CLUB

Correspondence Invited

PRINCE EDWARD ISLAND

KINGS CO. P. E. I.

S. MONTAGUE, Aug. 8.—Weather is very dry. Grain is a very poor crop. There is no other grass. Horses are suffering badly for want of rain. Cattle are in very poor condition. Nearly every spring and well in the country are dry. Potatoes: Hay, \$9 to \$12; potatoes, 50c; oats, 50c; bran, 0.15; oil meal, \$2.35; eggs, 16c. The outlook for the rest of the season is bad.—N. A. A.

PRINCE CO. P. E. I.

RICHMOND, Aug. 17.—Hay was a better crop than expected. A lot of timothy seed was sown. Wheat, oats and barley are an excellent crop. Potatoes, turnips and mangles look well and prospects are for a good crop. Milk at factories is going down. Cheese is a good price. A great many properties are changing hands; real estate advancing rapidly. Not much produce moving. Dairy but, 15c to 20c; eggs, 11c to 10c; hides, 10c.—J. D. M.

NOVA SCOTIA

ANTIGNONISH CO. N. S.

ANTIGNONISH, Aug. 16.—Although the summer has been very dry, the farmers' stores will be fairly well filled. Hay has been almost an average crop, and as well cured. Wheat will not be as good as last year. Oats are filling good, but the straw will be light. Potatoes are

doing well. Turnips are very backward, and if rain does not come will be a failure. Apples are small and are dropping badly. Prices are as follows: Lamb, 5c; butter, 20c; eggs, 10c; milk, \$1 a cwt.; new potatoes, 30c.—Tom Brown

QUEBEC.

COMPTON CO. QUE.

COMPTON, Aug. 8.—Crops are looking rather poor. The weather has been very high, cornmeal is \$1.60, oats, 50c; bran, 40c; butter, 20c; milk, 10c. We are having very hot weather now, and it is said that many have to haul water. Potatoes are going to be a light crop.—H. G. G.

EASTERN ONTARIO

CARLETON CO. ONT.

BRITANNIA BAY, Aug. 12.—The hay crop has not been better in four years. Grain is an excellent crop. Most of the farmers are done cutting. Corn, potatoes, and roots have suffered on account of the drought. Potatoes, 50c; wheat, 1.00. The vegetables are scarce this year. Veal is scarcer than it was earlier in the season at 12c to 15c per lb. Beef is 10c to 12c; pork, 12c. Ret.—J. H. D.

HASTINGS CO. ONT.

TURRIFF, August 15.—Farmers are busy harvesting. Grain has ripened suddenly. It is a little light. There is a shortage. About the usual number of farm hands went to help harvest the western wheat crop. Most of them returned before November. Help is a little scarce. The mines and quarries absorb all surplus labor that is not being used in the west. Wages average \$1.25 with board. Hay, timothy and clover, was an excellent crop. The wheat is a little better than usual. The practice of sowing turnips early is growing in favor. Some sow turnips first of all. Intensive farming is plainly the best, now that produce can be shipped by express to the cities.—W. B. W.

NORTHUMBERLAND CO. ONT.

EDVILE, Aug. 12.—The harvest is now in operation. We are favored with fine weather. The grain crops will scarcely be up to the usual yield owing to the cool season.—E. H.

WESTERN ONTARIO

WENTWORTH CO. ONT.

KILKWALL, August 14.—Since last writing we have had several heavy showers, which have freshened up the soil, and also helped the corn and root crops. Harvest is over for another year. Considerable of the spring grain is left, especially. Hardly as large an acreage of wheat will be sown as last year. The "Golden Jewel" and "Ruddy" are the varieties of wheat. Potatoes are selling at 50c a peck; new wheat, 90c; oats, 60c; hay, \$14, eggs, 20c; butter, 27c; lamb, 85; hogs, 27.50.—A. W.

WATERLOO CO. ONT.

WATERLOO, August 9.—We have had a very dry summer. The grass fields have made very little second growth, so that pasture will be short. Hay was a light crop; wheat was good; while barley and oats were light and short as a rule, although some excellent fields of oats are seen. Most of the turnips, except early sown ones, did not come up. The weather rain about three weeks ago. The apple crop will be light.—G. H. S.

SIMCOE CO. ONT.

ELMVALE, Aug. 15.—A fair estimate can be made of the season's crops. Hay is probably 90 per cent. of an average crop. It was well saved, but owing to the dry and extremely hot weather it matured so rapidly that much was overripe and "woody." Straw of all crops is light, and earlier sown having the longer straw and the better grain. Apples are not a good crop, and the continuous hot weather will tend to make them small in size and few in number. The same may be said of the potato crop. Buckwheat, the present promising well and bearing frost, the later sown will be a good crop. Buckwheat is being much more extensively sown in this district.—B.

MANITOBA.

MARQUETTE DIST. MAN.

KELLOE, Aug. 14.—Harvest has not commenced yet, the weather having just cleared up. We expect to start cutting wheat about August 21. There was some talk of rust, but as it is very late in the year we can see no damage. Haying is about over. Hay was not a heavy crop, but we do not put up more than is wanted. Everyone was surprised that a bad hail storm passed through last Friday night. Some farmers think it took 19 pounds per cent. of their crop, but it was only 100%—L. J. N.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of The Canadian Holstein-Friesian Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

THE RELATION OF THE HOLSTEIN COW TO DAIRYING

Prof. H. H. Dean, O.A.C., Guelph. "History repeats itself." The people of Guelph are noted for their dirt, pro-gressiveness, and wealth. They are the wealthiest per head of population of any country. A heavy condition has been brought about largely through the influence of the Holstein-Friesian cow upon the agriculture of Holland. This influence is not of recent origin, else it had not been so potent. We read that the Friesian people have dwelt upon the shores of the North Sea since 500 years before the Christian era. It is supposed that these people came originally from India, bringing with them the breed of white cattle and sought the shores of the North Sea as a pasturing ground for their stock. Two hundred years later a German tribe came from the Upper Rhine district and also settled on the shores of the North Sea near the Friesians. They soon brought their cattle with them—a black race of animals. It is further supposed that the white cattle of the Friesians and the black cattle of the Germans became crossed and thus laid the foundation of the present Holstein-Friesian breed of cattle and also the foundation of the dairy industry in Holland.

The cattle have spread to America, where a larger number and better cattle of this breed are found than in their native country. The conditions in Canada and the United States are favorable for breeding large numbers and for developing the breed to their highest capacity. Our large areas of land and immense stocks of food are favorable natural conditions for developing the hereditary tendencies of the breed, while our wide-awake breeders have been quick to see the possibilities of animals of black and white color, in milk production, and have developed these with all the shrewdness characteristic of the race dwelling in North America, not the least important of whom dwell in the country called Canada.

I should like, however, permission to say that there is an element of danger in placing too much stress upon tests for a short time, and at a time when a cow is in a condition to do her best—in some cases after long periods of rest. Some one has said that nine-curd and records are made to be broken, but we need to be careful that suspicion as to methods adopted in breaking records do not rise to a point that discredit rather than credit will result. I should also like to say that yearly records and records of eight months after calving ought, possibly, to be emphasized more than is the

*Addressee before the C.H.B.A.

case at present. We have faith enough in the breeders of Holstein cattle to believe that they will adopt whatever is for the permanent benefit of the breed. Let us have seven days, 30 day, and 365 day tests. We cannot have too many. The only point to guard against is an unreliable test.

One other phase of the testing question must be referred to, viz., public tests, at which the Holstein breeders distinguished herself and brought honor to her owner, and this in spite of the various handouts which have been awarded adversely these in charge of a serious basis of the country where public tests are made are most aptly influenced by external and internal conditions of the cow, has a more restricted use as a food than other constituents of the milk, is more liable to cause disorder to the user of milk when in excess—then why place so much emphasis upon it? The explanation we can offer is, that people have gone "fat crazy." It is possible that the public have confused "fat" and "fatness" as the former is so popular in these modern times. We would not minimize the value of milk-fat for butter-making, or when in proper proportion to other constituents of the milk, but a continual use of an excessive amount of milk-fat is disastrous to the human system.

The Wisdom of a King

It is related of Ferris the Great that after the cruel Seven Years' War in which Prussia was almost ruined financially and otherwise, this great king and warrior went about among his people, more particularly farmers, loaning or giving them money to make a fresh start, offering advice and help wherever needed, that he invariably advised the farmers to go in for cattle-raising. A man would come to him and say, "I don't like cattle; I prefer horses" or some other line of farming, but the scarred warrior would reply: "Take my advice, and raise cattle; they will restore you soil fertility and pay dividends from the first." Fortunately the Prussian farmer profited by this advice, and we have in the German Empire a forcible example of what cattle raising can do to restore the fortunes of a practically bankrupt nation in the 18th century.

What was good advice at that time is good advice to-day in Canada, and every farmer who takes a little time to see where that nation is practically a beggar. Breeders of Holsteins can help very much in national prosperity by selling pure-bred bull calves to the average dairy farmer at a reasonable price. We have heard men say that if they could not get their price for a bull they would sell him to the butcher rather than at a lower price. A good animal sold in a locality, formerly inclined to undervalue pedigreed stock, would be bound to win favor, and in the end would result in increased demand for pure-bred males, and consequently increase the profits of breeders in the long run.

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of every description, including Woodward Water Basins, Stanchions, Iron Stalls, etc., at a very low cost. You will then have an up-to-date stable in every way. Your cows will be comfortable, your stables will be easy to clean and your increased profits will pay for the equipment in a very short time. Ask our nearest agent or send for our Free Catalogue, and see for yourself that the claims we make are founded on fact.

ONTARIO WIND ENGINE & PUMP CO., Ltd.
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Comfortable, Sanitary, Stable means More Milk, and More Milk means More Profits

market 70 boxes were boarded. All sold at 12 1/2¢.

Central, Aug. 17.—The Quebec Cheese Makers' Cooperative Society sold 1,567 boxes fine cheese at 15¢ and 1,799 boxes of \$ 2 at 12 1/2¢.

North, Aug. 18.—475 cheese boarded, and sold at 12 1/2¢.

Ontario, Aug. 18.—20 factories boarded 113 boxes, all col. red. All sold at 15 1/2¢.

Western, Aug. 18.—Offered, 695; all sold at 15¢.

North, Aug. 18.—475 cheese offered, all sold at 12 1/2¢.

Victoriaville, Que., Aug. 18.—Three cars of cheese sold at 12 1/2¢.

AYRSHIRES FOR SALE

High class Yorkshire pigs, all ages. Representatives of this herd will be on sale at the Central Canada Exhibition, Ottawa, and at Riverside Farm, Montebello, Que. Apply to

ROBT. SINTON, or to HON. W. OWENS, Proprietor, Riverside Farm, Montebello, Que

SPONEHOUSE FARM

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize old and young herd. For sale a few choice Young Cows, also Bull Calves.

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Special offering of four young bulls, first particulars.

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A few very choice Bull Calves, out of deep milking dams, and sired by "Bencheskie Cheer-ful" Imp. Write now for our latest sheet. Females of all ages. A Commercial Herd.

W. F. KAY, PHILIPPSBURG, QUE

BURNSIDE AYRSHIRES JUST LANDED

12 Bulls fit for service, Scotch winners. A year old heifers, all bred to freshen in Sept. and Oct. They are a grand strong lot of useful heifers with good teats. Also a few good yearlings.

R. B. NESS, HOWICK, QUE.

AYRSHIRE BULLS

Young Bulls all ages up to one year. Three fit for immediate service, all from R. O. P. Bull for service.

James Boggs, St. Thomas, Ont. P. R. No. 1

Ayrshires

World's Champion herd for milk and production. Some young bulls and bull calves, all from R.O.P. cows for sale. A grandson of Primrose of Tanglewily in the lot. Address

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THE SPRINGBANK HERD OF AYRSHIRES

Contains more of the World's Champion milk and butter producers than any other herd in America. A few choice bull calves from the best. Address

A. S. TURNER & SON, Ryckman's Corners, Ont. 1 mile south of Hamilton.

CHOICE AYRSHIRES

Are bred at "CHERRY BANK" A few young bull calves for sale. Write for prices.

P. D. McARTUR, West Georgetown, Howick Station on G. T. Ry. Que.

Keenerville, Aug. 18.—420 colored cheese offered; one lot sold at 12 1/2¢.

Montreal, Aug. 18.—The Quebec Cheese Makers' Cooperative Society sold 212 boxes finest butter for 25 1/2¢ boxes fine 24 1/2¢; and 37 boxes No. 2, 24¢.

London, Ont., Aug. 19.—1,187 cases; 643 sold at 15¢ to 15 1/2¢; bidding 13 1/2¢ to 15 1/2¢.

Belleville, Aug. 19.—1,540 cheese; 1,175 packages at 15 1/2¢ and 225 packages at 15 1/2¢; balance refused.

Cowanville, Que., Aug. 19.—677 packages butter and 89 boxes cheese; 542 packages butter sold at 15 1/2¢; balance of butter at 25 1/2¢; cheese all sold at 12 1/2¢.

St. Hyacinthe, Que., Aug. 19.—600 packages butter sold at 25¢ and 500 packages of cheese sold at 15 1/2¢.

Waterloo, N. Y., Aug. 19.—Cheese sales, 7,700 at 12¢ to 12 1/2¢.

Canton, N. Y., Aug. 19.—1,800 tubs of butter sold at 26 1/2¢; 2,200 boxes of cheese at 12 1/2¢.

GOSSIP

BLUE BLOODED GUERNSEYS FOR CHICAGO NATIONAL DAIY SHOW

At the National Dairy Show in Chicago this year a contest is to take place between the breeders of the United States and the cattle experts of England as to which country has the best judges of its dairy cattle. This international rivalry has never been settled. Year after year American and English fanciers visit the Guernsey and Jersey Islands and return with their impressions. These animals easily win in their classes in each respective country, but have never competed internationally, so it has often been a question whether Englishmen or Americans are the best judges in the selection of their prize animals.

About a month ago an intimation reached Chicago from a few representatives of England, and incidentally, titled breeders of English cattle, that they were ready to try conclusions with their American brothers; it being suggested that the matter be settled in the ring of the National Dairy Show in Chicago next October. This was promptly agreed to by the officials of the Exposition, who had been selected to host the greatest case tried in their "Court of Last Appeal" for the world's leading breeders.

To show how important the Englishmen regarded the matter, and to illustrate the thorough way in which they went about it, there was a man selected from the members of the English Guernsey Cattle Club—including its president, Sir Henry Lennard—who had been selected to visit David Michie, who judged seven of the nine great English shows this year, and Mr. W. Maho, an expert who has attended the best to Chicago. There will be about the last fifty Royal Shows to visit the leading herds and pick out absolutely the very best that England affords and send them to America. There will be not the best animals America affords, and when the two countries line up in the ring of the International Amphitheatre there will be represented nearly a million dollars' worth of dairy cattle.

The English herd has been selected as follows: Four from the herd of Sir Eyraud Hambro, Governor of the Bank of England; two from the herd of the Marquis's herd (one a winner at this year's Royal); two from Sir Henry Lennard's herd; one from Lord Palmouth's herd, and two from Canon Fitzmaurice's herd. It is unquestionably the greatest lot of Guernseys ever assembled. No one bred in England could do this better, and it is going to take great effort and careful thought in selection upon the part of the American breeders to win in this company.

ONTARIO CROP BULLETIN

The following is a synopsis of the statement regarding the condition of crops in Ontario as issued by the Ontario Department of Agriculture under date of August 24th.

Fall wheat: The average yield per acre will be decidedly less than usual. Heat and drought account for this. Wheat has not been serious, but the Hessian fly has been mentioned in in almost all parts of Western Ontario.

Spring wheat: The acreage is smaller, the straw is short, but the yield is reported as good.

Barley will be below the average this year. The straw is short.

Oats have fared the worst of all grain crops. The straw is short and the heads were not well filled. There were some complaints of rust.

Produce of the unusual drought and heat, and the yield will be below the average.

Beans: Weather conditions have not

been favorable for beans so far, but there will be small opportunity for the crop to pick up before it is harvested.

Hay: Clover is badly winter-killed and the hay crop over the western part of the province will average low, while good yields are reported in many counties of the East.

Corn has not suffered from drought as have other crops, and a good yield is anticipated.

Onions is described as being from fair to good.

Potatoes will be light, as a rule. Beets have worked great depletions. Bunches has been quite serious, but there is no mention of a root.

Corn is at a poor start and many fields of turnips were plowed up. Mangels look fairly good and sugar beets are thrifty. Fruit: Apples will be light in total yield, due to poor setting and the quantity blown off by high winds. Winter apples will be scarce in almost all localities, though much freer from spot or scab than usual. Duchess and similar varieties will be a fair crop. Pears are better than apples. Plums range all the way from poor to good. Apples and pears will be medium and small fruits were short, due to the intense heat.

HOLSTEIN NEWS

A COMING HOLSTEIN SALE—Seventy-five head of pure bred Holstein cattle will be sold by J. J. Van der Kolk, of Manhard, Ont., at auction on October 17. Further announcements of this sale will appear in later issues of Farm and Dairy.

THE RELATION OF THE HOLSTEIN COW TO DAIRYING

(Continued from page 17)

A fair price for a pure-bred bull calf, say a month old? This is a difficult question to answer, but judging from the views of the correspondents should say that the average farmer considers \$25 a good price for such a calf. This, of course, would be considered a very low price by breeders of "fancy" stock, but it strikes me that there is a profitable trade to be worked up with dairy farmers who cannot afford to pay high prices. If the plan of cooperate or community breeding were adopted, where, by a number of farmers in a locality, it would purchase a pure-bred bull for their use, it would enable them to secure the services of a first class male at a comparatively low cost; but where this is not practicable and the individual farmer on a rental or morgaged farm has to buy a bull, there can him to all his neighbors free of cost, he cannot afford to pay a very high price for an improved line of dairy cattle.

The Future of Dairying

The Holstein cow is characterized by her ability to change cheap roughage into valuable milk. The future of dairying in Ontario, so far as farming is concerned lies largely along the line of milk production, for town and city trade, for condensed milk, for buttermaking and cheese-making; and in side lines of dairying, such as, broom and poultry together with the growing of fruit. With the opening of the American market for our concentrated farm produce, dairying is likely to advance more than it has been able to do in the past few years, during which time it has largely been in a state of "as you were."

You may not agree with all the views as set forth in the foregoing, but the dairy teacher must ever set before his hearers what he believes to be the truth. Nothing less than this will satisfy the thinking, progressive members of this association or of any other body of dairy-bred-dairymen. Some one has said that great men are the result of genius and it looks to me as if this was the opportunity for breeders of Holsteins to forward their own and the dairy interests of Canada. I am sure that their genius will rise to the occasion.

HOLSTEINS

If you are wanting HOLSTEINS, get age, either sex, write

GORDON H. MANHARD, Manhard, Ont.

Homestead Holstein Stock Farm

Offers for sale 2 Choice 5-year-old Cows of best breeding and heavy persistent producers, due to freshen Sept. lat. Brood to Aggie E. D. No. 543, one of the highest R.O.P. bred bulls in the country.

R. R. BARR, Harriestville, Middlesex Co.

HOLSTEINS WOODCREST HOLSTEINS

A few choice Bull Calves for sale; six to ten months old. Some of them Homestead Col. of the Sarcastic Lad, and grandsons of Pieterje 22nd. Recently tuberculin tested by a U. S. inspector. Write for pedigrees and prices.

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RIVERVIEW HERD

Offers Bull ready for service. Sire, a son of King of the Pontiac; dam, a daughter of King Regis with over 22 lbs. butter at 3 years and 3 months.

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Three bulls fit for service and several Bull Calves. All sired by Count Hengervold Payne De Kol, son of the Hon. Col. R. O. Dams with record up to 24 lbs. butter in 7 days. Write for descriptive catalogue.

E. P. OSLER, BRONTE Telephone.

GLENSPRINGS OFFERS

Six fine pure bred bull calves from two to 10 weeks old. Every one from officially tested dam. Color markings to suit every taste. Those that wish Hengervold blood secure one of Count Gerben's sons. Those that wish Garmen Silva and Alta Poesch blood secure one of the Sila Sila Beets Posch. Prices moderate.

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Sons of Pontiac Korndyke, sire of the world's record cow, Pontiac Clothie De Kol 2nd, 37.20 lbs. butter in 7 days. He is the sire of seven daughters whose 7 day records average 21.3 lbs. each, unequalled by the daughters of any other sire of the breed living or dead. He is the sire of the youngest bull of the breed to sire a 30 lb. daughter.

He also offers sons of Rag Apple Korndyke, whose dam Pontiac Hag Apple is a full sister to Pontiac Clothie De Kol 2nd, 37.20 (world's record) giving this young sire's dam and her full sister 7 day records that average for the two 24 1/2 lbs. each.

We have in service, and can offer you sons of Sir Johanna Colantha Glad, a son of the highest record daughter of Hengervold De Kol, 114 1/4 lbs. daughters, four over 30 lbs. each. This young sire is a son of Colantha Johanna Glad, whose dam Colantha 4th's Johanna, has a 7 day record of 32.2 lbs., making his dam and sire's dam average 26 1/2 lbs. each, which is higher than that of any other sire of the breed living or dead. He is the sire of the highest priced anything you want in first-class Holsteins; young sires our Specialty. E. B. DOLLAH, HEVELTON, St. Lawrence Co., N.Y. Nene Prescott, Ont.

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Offers two, young bulls born September, 1910, one of them from a tested daughter of 20.25 lbs. Canning and sired by a son of a British bred, yearling daughter of Hengervold De Kol.

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For illustrated guide, "Niagara to the Sea," send 5c in postage stamps to H. Foster Chaffin, A.G.P.A., Toronto, or Thos. Henry, Traffic Mgr., Montreal, R. & O. Navigation Co.

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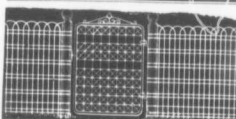
August 25th { From all stations Toronto and east of Orillia and Scotia Junction in Canada.

Full particulars from any Grand Trunk Agent, or address A. E. Duff, District Passenger Agent, Toronto.

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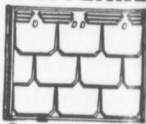
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