

Seventh Annual Breeders' and Christmas Number

FARM AND DAIRY & RURAL HOME

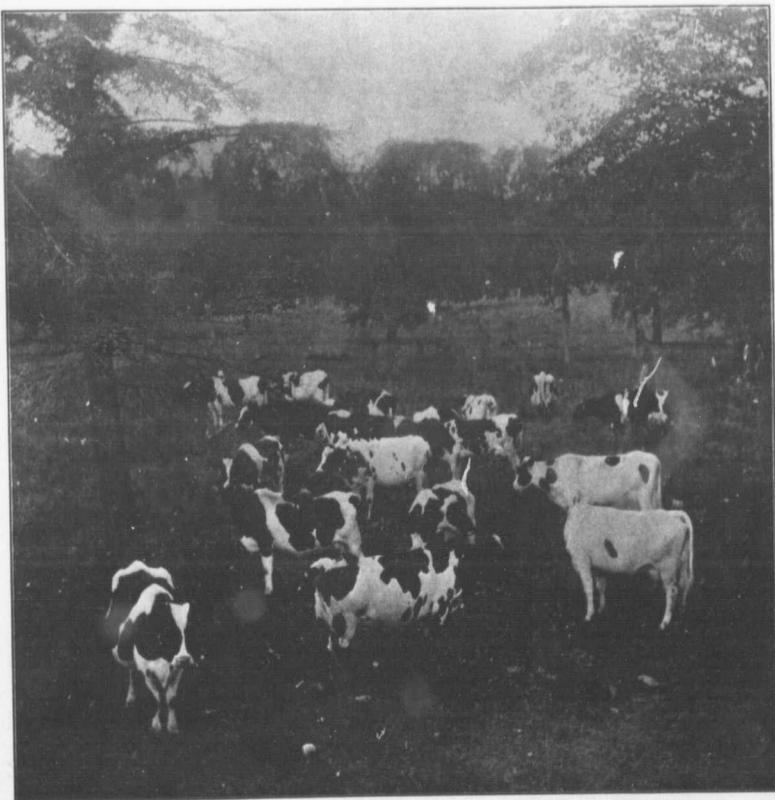
Dairy and Cattle Shows
Age Coburn - Etc. 18
Canadian Bldg.



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE



Peterboro, Ont., Dec. 9, 1915

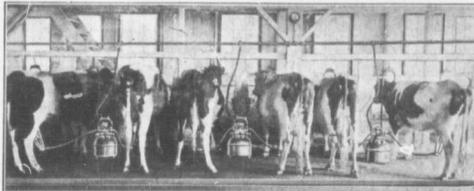


THE CAPACIOUS UDDERS OF DAIRY COWS ADD MILLIONS TO THE NATION'S WEALTH.
-Photo on farm of Mr. Lobb, Huron Co., Ont.

ISSUED EACH WEEK

Rural Publishing Co., Ltd., Publishers

ONE DOLLAR A YEAR



B=L=K Milkers Save Money

The greatest advantage of Barrell-Laurence-Kennedy Machine Milking over hand milking is the big saving every year in actual cash. When you add this to the other advantages you can not but admit that milking by the B=L=K method, as one customer puts it, "has got hand milking beat by a mile," no matter what way you look at it.

**Sanitary Milk
Cows Milked Clean
Milking Time Cut In Half
Large Yields**

AND

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are things you can not afford to ignore.

Each of these features mean

**BIGGER DIVIDENDS
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JUST AN INSTANCE TO SHOW WHAT ONE MAN IS DOING:

It is taking great pains in the care of the milk and the way the cows are handled, but he is milking 100 cows in two hours with six machines operated by two men and a third to carry the milk. He effects an actual saving of \$1,568.00 per year, with an equipment that cost him \$22.25 complete.

It is impossible for us to tell you more this week, about the B=L=K, and what it can do for you in the way of saving labor, money, etc., but if you drop us a card we'll gladly send you literature, giving full details. Get your card and pen now, before the matter slips your memory.

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WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

"Lloyd," a Good Farmer in the Making

A splendid example of intensive dairying is afforded by the little 18 1/2-acre farm of Mr. Dan Culp just outside the corporation limits of the city of Berlin, Ont. Mr. Culp is a descendant of the old Pennsylvania Dutchmen who many years ago settled a large portion of Waterloo county. They were progressive thrifty men, were the Pennsylvania Dutchmen, and their descendants have inherited the same admirable qualities. Big farms and small alike are carefully cared for. The buildings are always in repair, their surroundings neat and orderly. Mr. Culp's home is on one of these. The buildings are small like the farm but oh so neat!

I was riding past on my wheel a few weeks ago. I had never heard of either Mr. Culp or his farm. My attention, however, was attracted by the attractive, small home, but more particularly by the small boy of ten or twelve years who was running a lawn mower carefully around the shrubs and; the well kept flower borders. It is an unusual boy who spends a school holiday with such evident satisfaction in running a lawn mower. I stopped for a chat. As I admired the flowers I questioned the lad. He told me that his name was Lloyd, that his parents were away in Berlin attending market and that he was "in charge."

"Wouldn't you like to see our cows?" he asked. He led me to the stable with all the pride of a partner in the enterprise. "They are good ones," he insisted. "That one down at the end there gives 45 to 55 lbs. a day and we don't feed her heavy either."

A Progressive Little Dairyman Lloyd knew all about those cows and their capacity both for cutting feed and making milk. There were seven of them and to my somewhat practiced eye they looked just about as good as Lloyd said they were. They were mostly good grade Holsteins, the kind that will give a good living on even so small a farm as that run by Mr. Culp.

"There are almost 20 acres in our farm," Lloyd told me with far more pride than that with which many farmers would have announced the ownership of 200. I questioned as to how so much stock was fed! on less than 20 acres. "Well, you see we grow four acres of corn and have a silo," he volunteered. Sure enough there was a small cement silo behind the barn. Evidently this youngster knew

more about economical feeding than many of my friends who have grown gray in the dairy business.

"We grow some strawberries and some vegetables and dad sells them in Berlin," Lloyd said when I asked him about other sources of income. He told me that they own their own farm and make a good living. Lloyd will be a farmer some day and if I don't miss my guess he will be a good one. He has always before him an example of intelligent thrift that have enabled his parents to realize the dream of many—"a little land and a living," a good living, too, by the way of good dairy cows and a small acreage of money crops.

"Good-bye, Lloyd," I called as I mounted my wheel.

"Good-bye Mister, please come back again and get a photograph of our cows when they are out," was the parting injunction of this small boy-farmer.—F.E.E.

The Bank Barn Condemned

A Breeder, Oxford Co., Ont.

THE old barn on our farm was of the style built long years ago, without a basement and the stables on one side of the drive floor. Four years ago we decided to remodel. The old barn was raised some six feet and a basement stable with nine foot ceilings built under it. The foundation walls were of cement. We have just finished our third winter with the basement stable and we have had enough of it. The money that we put into it was worse than wasted.

As I see it now on more mature consideration, it is not reasonable on the surface of things that a basement stable would be satisfactory. We wouldn't attempt to keep implements in the basement; they would rust out. We wouldn't live in our own house cellars, even if they were furnace heated; we would get rheumatism for sure. Why then expect cows to escape tuberculosis in the damp, fetid atmosphere of the average basement stable. The main trouble that we have found in our stable is that dampness cannot be avoided. It is warmer of course than the old frame stable, but in this case that is a doubtful advantage. We are going to board up the cement walls with paper underneath, to see what effect that will have, but our advice to all who are remodeling stables is to avoid the bank barn.

Backed by 23,000 Lbs.

108 Lbs. in One Day, 19,000 Lbs. in Nine Months
Looks Like Nearly 24,000 or over in the Year

We offer her son, a show animal, sired by a son of the great May Echo (23,707 lbs. milk in the year and 1,042 lbs. butter), and a brother of May Echo Sylvia (131 lbs. milk in one day, 36.49 lbs. butter in seven days), for sale.

If you are looking for a bull who has several close relations of over 100 lbs. in one day, write us or come and see the herd. Visitors always welcome.

JOSEPH O'REILLY, High Lawn Farm, ENNISMORE, Ont.



Trade incre

Vol. XX

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FARM AND DAIRY



& RURAL HOME

We Welcome Practical Progressive Ideas.

The Recognized Exponent of Dairying in Canada.

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

Vol. XXXIV

PETERBORO, ONT., DECEMBER 9, 1915

No. 49

The Road to Dairy Herd Improvement

A Personal Story of Breeding Experience in Our Own Herd.

HERBERT GROH, WATERLOO CO., ONT.

OURS has been to a greater or less degree, a dairy farm ever since my father purchased the first 87 acres of our present 335-acre farm over 30 years ago. That is, we have always milked cows. I cannot say, however, that we were really entitled to the honor of being called dairymen until 15 years ago. It was then that we purchased our first pure-bred dairy sire and started in real earnest to build up a high-class productive herd. Though slow, we have not found the road to dairy herd improvement a hard one. It has called for persistence to overcome difficulties and disappointments. We have found, as all others must find, that increasing the producing ability of a herd, is not a mechanical process governed by rules of mathematical accuracy, but a process in which we work with living animals and the results are not always certain. We have persevered, however, and although we have not yet attained our ideal, we are much nearer it than we were when we started on the road 15 years ago.

Our herd is now about evenly divided between pure-bred and grade animals. We purchased our first pure-bred Holstein females nearly 12 years ago. We began cautiously and purchased two calves, only one of which, however, proved to be a success. Our present pure-breds are therefore nearly all descended from this one cow, and as fast as they can outyield our grade animals, they are replacing them in the herd. We are not accepting any animals merely because they



A Result of Grading. She Has All the Marks of a Pure Bred Holstein.

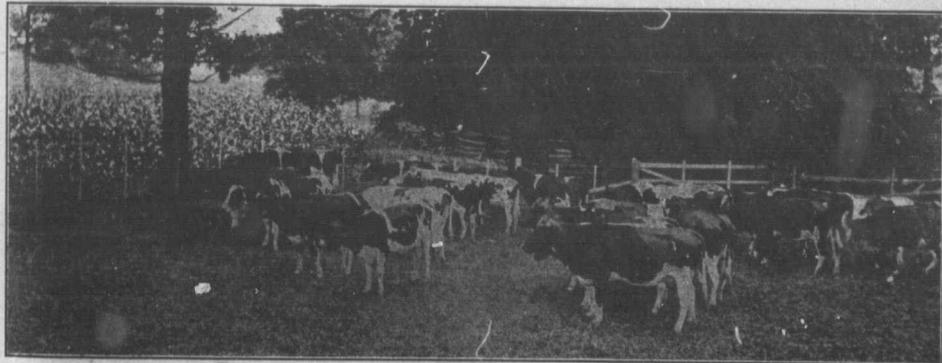
have pedigrees. They must win the right to a place in our stable. We will give them as good a chance as the grades and no better. Beside these two heifer calves we have purchased no females in 15 years, our idea being that a farmer can develop a herd with less outlay and un-

certainty than he can purchase one. We aim to keep up and improve the quality of the herd through the sire. The one we have at present is a grandson of old Pontiac Korndyke. Last year we were milking an average of 21 head, and their production was 8,145 lbs. of milk. In 1912, the average production was a couple of pounds more. We have milked as high as 30 cows at one time.

The Breeding Farm

Our herd improvement is unique, in that it is being carried on exclusively with the original grade and pure-bred foundations. Of eight unrelated families in the original herd and the two purchased pure-breds, only two have yet been entirely weeded out of the herd, but two families predominate quite largely at the present time. We are taking too much pride in our little demonstration on herd improvement by selection and the use of good sires, to be willing to spoil it by mixing in fresh strains, which might, or might not, hasten things financially. Besides our interest in this as an experiment, we have also had in view the danger of introducing disease with purchases. Only once have we discovered tuberculosis in the herd, and then the prompt application of the tuberculin test and removal of a second animal cleaned things up so that subsequent testing has found conditions right again.

We have not gone blindly. We have kept records from the first, and consistently weeded out the poorest producers. The degree of success that we have had in the improving of the pro-



"Increasing the Producing Ability of a Herd is Not a Mechanical Process Governed by Rules of Mathematical Accuracy." Photo on Farm of J. W. Richardson, Haldimand Co., Ont.

during of our herd is best evidenced by the following table:

Year	No. cows excluding heifers & cows not competing	Ave. lbs. milk per cow	Highest Yield	Lowest Yield
1899	6	5269	6005	4278
1900	9	5632	7258	3376
1901	8	4644	5667	3745
1902	10	5403	6227	4083
1903	10	5453	7341	4353
1904	10	4444	7109	5743
1905	10	7066	10225	5092
1906	10	6111	7363	3625
1907	10	6409	8207	2650
1908	12	6198	8113	4631
1909	14	5798	8122	3845
1910	15	7075	8615	4324
1911	18	7020	9257	6073
1912	23	8147	10437	6142
1913	23	7649	10679	5916
1914	23	8345	11744	4866

The Real Progress Made

These herd records will not seem high to some

dairymen nor the progress outstanding. A close examination, however, will prove that the showing is better than it appears on its face. Notice for instance, that the lowest record of 1914, is almost as good as the best records in 1899. I might add, too, that the lowest record in 1914 was made by an old cow with poor teeth, who when younger was one of the best cows in our herd, and we are retaining her as a breeder. Leaving this cow out of consideration, the poorest record of 1914 is better than the best record of 1899.

One grade cow in our herd has gone over 12,000 lbs. of milk and freshened again in 13 months. This cows has had several crosses of pure-bred Holstein blood which accounts for her producing ability. All of the grades in our herd

have had at least two crosses and some of them four crosses of pure blood.

Heretofore, we have culled entirely on total milk yield. We are now starting to cull our herd on the Babcock test standard. We have not yet enough figures on which to base conclusions. Last year, however, we started to make monthly tests of the milk of each cow. We have our own testing machine, a 40-bottle affair, and find that it takes a half a day a month to do the testing. Selling cream as we do, culling according to fat production, is of equal importance with weighing at according to milk production.

Feed Records Now Used

Feed records have also been recently adopted.

(Continued on page 10)

Impressions Gained from a Round of the Fall Fairs

The Show Ring is Exercising a Definite and Important Influence on Dairy Cattle Breeding.

PROF. H. BARTON, MACDONALD COLLEGE, QUE.

I HAVE been asked by Farm and Dairy for a summary of impressions obtained in my rounds of the fall fair season, relative to the influence of the show ring in dairy cattle improvement. In thinking the matter over one of the first things which occurs to my mind is that apparently in this country at least, the show ring is each year becoming a more potent factor in the maintenance and development of our leading dairy breeds. This does not necessarily mean that other factors are not becoming more



Prof. H. Barton.

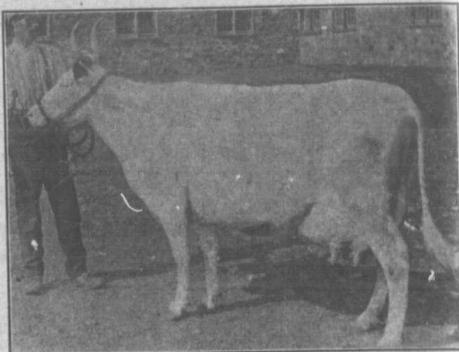
potent as well, as for instance record work and club work, but it seems to me the larger fair especially, is exercising, and is capable of exercising, a more definite influence in dairy cattle breeding at the present time than has been the case in former years. Because of either the former importance of the show ring and its somewhat extreme teaching, or the present activity of other organs at work, I am inclined to think the above statement will not equally apply to some other countries. Be that as it may, what concerns us most is our own situation, and if my diagnosis of the case is correct it should mean not only much encouragement for every one interested in dairy cattle work, but also through our shows a big opportunity for greater influence and higher attainment, which opportunity every one concerned, including the fair management, should appreciate and use to advantage.

For this thought a number of factors probably are responsible. The growth of the dairy cattle exhibit may be mentioned as one. From a comparatively small part it is rapidly becoming, if it has not already become, the chief live stock feature at many of our large and small exhibitions, and thus the influence, sphere and importance of the show ring have increased accordingly. The effect of this may be said to

be both general and specific; general in that it affects dairy cattle as a whole and is taken in some measure as a barometer of the breeding industry; specific in that it makes for greater competition, closer rating, and more individual distinction for a given animal, a given type, and incidentally a given breeder.

Sanity of New Standards

Another factor may be the general attitude of breeders toward the show ring in accordance with present ideas on breeding, some of which show distinct modifications of those held even a few years ago. It seems to me that breeders as a whole in this country were never more keenly alive to the importance of properly balancing dairy cattle requirements. In other words, we have fewer men who might be placed in the extreme camp of production often without type, without udders, etc., and fewer men who are slaves to type, udders, etc., with or without production. Production cranks are striving for type, naturally the production type, but at the same time the type that ensures more than a single production and in the other hand type cranks are more and more measuring their type



An Ayrshire With Character, Strength and Production. She Approaches Very Closely to Her Breeder's Ideal.

in accordance with production. Evidence of this is available in its recent common expression and emphasis by breeders, and has been noticeably revealed in a number of public sales. The auctioneer has the least difficulty with the balanced animal, the one with a record, good indication of it, and some individuality. Naturally the dairy cattle show ring with its present scale is likely to share in the above movement, and because of the tendency for movement its influence should be all the more felt.

Again if the above be true, with the production man heading the show ring only for what it may do in giving him some other utility features, and the type man after more certainty of production, the work of the judge should and must meet these interests. It is more important than ever that judging be based on general utility to include in the particular animal, the product of the above ambitions, indicating in itself the ability to breed, to produce, and to wear. Certainly a judge will find conflict of the various interests when it will be difficult to decide and maintain an apparent balance; he will find the cow with indications of phenomenal production and not much else, he will find the breezy, strong, good appearing animal but without as much milk indication as he would like, and between these and other features he must decide, it may be in some cases in accordance with what else is available in the ring, but in any case such a decision need mean no violation of the above principle. Happily with the growing importance of the show ring in extreme situations of this kind are



An Ayrshire With Good Indication of Production and Ability to Wear, but of a Somewhat Plain or Old Fashioned Type.

becoming material, especially opportunity to show.

I think it was this year registered the Not of least the fact that shared by all some per one show an Even a brief reveals man

A Word

Probably exhibit included and certainly seen more among themselves. To mention in such honor, yet in going was entries of you or no prizes who could exhibit could some money in this

Uniformity, and if ing its purpose manifestation have been a stein is not which character as it was, long list of work of Canada was different than one included cow owners, and exhibit with of Holstein never did and quality placings in stock in all of this feature not as keep future year common udder mentioned, fore udders, quarters feet too close together side and be the wrong stance hind ly understood ones pointed some cases to the direct fleshy, coat and in other poorly adapted somewhat per certain cases had less milk her udder m better appearance a matter of breeder's pleasure

In this point out matters frequently tormenting breeder who te advantage

becoming less frequent and the abundance of material, especially in younger stock, serves opportunity to counteract any misleading impression.

I think it can be safely said that in many ways this year's exhibit at the larger shows registered the top-notch in dairy cattle attainment. Not of least importance in this consideration is the fact that this achievement was shared by all our leading breeds, some perhaps doing their best at one show and some at another. Even a brief analysis of the exhibit reveals many interesting things.

A Word for New Exhibitors

Probably never before has the exhibit included so many herds, and certainly no one year has ever seen more new exhibitors and among them so many young breeders. To make a creditable showing in such a display was no small honor, yet in many cases the best going was none too good for the entries of younger breeders. Prizes or no prizes, any young breeder who could show a creditable exhibit could well afford to spend some money for exhibitor experience in this year's company.

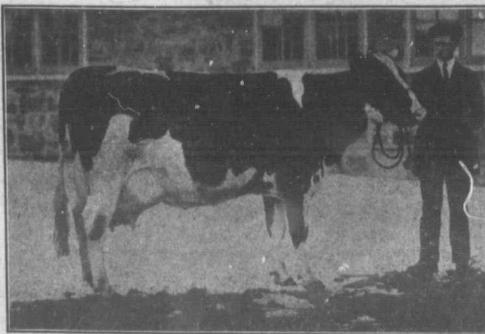
Uniformity was a marked feature, and if the show ring is serving its purpose this may be taken as one of the manifestations. Certain breeds for some time have been renowned for uniformity. The Holstein is not one of these but the uniformity which characterized this breed's showing, large as it was, and including as it did an extremely long list of breeders, is a splendid tribute to the work of Canadian Holstein breeders. True there was difference of type, one might also say more than one prevailing type, but as a whole the breed included comparatively few conspicuous tail-enders, and no one could closely observe the exhibit without realizing that the generally accepted Holstein type of to-day is asserting itself as it never did before. Udder formation and quality explained numerous placings in both young and old stock in all breeds, but in the rating of this feature some exhibitors were not as keen as they will be in future years. Among the most common udder defects might be mentioned, poor balance with light fore udders, udder split up into quarters from below, teats placed too close together, especially on the side and behind, teats pointing in the wrong direction, as for instance hind teats pointing abruptly underneath the udder and front ones pointing to the outside in some cases almost at right angles to the direction they should point, fleshy, coarse, muscular udders and in other cases lacking muscle, poorly attached, resulting in a somewhat pendulous condition. In certain cases it would seem that had less milk been left on the cow her udder might have been given a better appearance. In any case it could only be a matter of minimizing the defect, but it is a breeder's privilege to show an animal at its best.

In this connection one might do worse than point out that this privilege is often neglected in matters other than udder. Conditions as they frequently were this year with flies and sun tormenting, are not very favorable, but the breeder who fails to legitimately show his animal to advantage is unfair to his charge, himself

and the judge. It may be argued that the keen exhibitor, through certain manipulation, may also be unfair to the judge and his fellow-exhibitors. However, that is the judge's lookout, and personally I would rather run some risk and see an exhibitor do all he could for his animal.

Fit and Condition

On the question of fit and condition a word or



A Breedy Heifer of Pleasing Type and Good Indication.

two may be said. There is no denying the fact that "show bloom" is very often responsible for a decision in close rating and not infrequently responsible when rating is not so close. Perhaps it is unfortunately too important, but it tells again in putting an animal at its best and the judge is likely to take things as he sees them and do as little speculating as possible. In any case "bloom" counts. Every one readily understands that an animal lacking fit and condition cannot have bloom, but a number may not very clearly understand that over-fitting and too much flesh may also be quite objectionable and in fact dangerously so. Jerseys nearly always show bloom

sacrifice in the other. The breed standard must always be the guiding star in this connection. A number of striking illustrations of where the acme of quality was associated with a lack of scale for the breed, and on the other hand extreme size in the form of grossness and at the expense of breed quality, were available among the entries.

Perhaps most important of all the object lessons revealed in this year's show experience is the vindication of the sire's claim for importance and the fact that breeding counts. While time and again it happened that animals of the richest breeding lacked the individuality to place them within the money, in herd after herd in the various breeds the moulding effect of the herd sire was most apparent, and many outstanding individuals paid tribute to a glorious ancestry. Such bulls as Grace Fayne 2nd Sir Colantha, Prince Abbecker Mercena, Sir Admiral Ormsby, King Segis, Hobsland Masterpiece, Brampton Stockwell, and many others which might be named, through their offspring demonstrated in a very large and certain way, that breeding with all its mystery, nevertheless, does

lend itself to direction and control, measurement of which, the show ring as one agency may well contribute.

Diversity in the Ration

"A COW likes a diversity of feed, but the proper way to give diversity is not to feed a jumbled up mixture." This is the unorthodox opinion of Mr. R. J. Kelly, of Oxford county. "Personally I don't like any supper to be a mere duplicate of my dinner, and I rather think the cow feels something the same way about it."

When questioned as to his methods of feeding,

Mr. Kelly admitted that he mixed the concentrates for his cows and fed them "jumbled together" on top of the ensilage. The night and morning rations are practically the same. Economy of labor was his reason for not serving his cows with full course meals. From what the Farm and Dairy man saw the cows seemed to relish the mixture of various meals and ensilage. They also seemed to eat it just as eagerly at night as in the morning. Whatever theories they may hold, most dairymen give their foods in mixture. No one food can cheaply supply all the needs of a cow's constitution. As long as variety is supplied the manner of doing so seems to be immaterial for practical results. For fine work Mr. Kelly's ideal may be O.K. Who will try it out and let us know of his results?—J. R. D.



A Business Type of Holstein But Lacking a Little in Character.

to wonderful advantage. Ayrshires are well known for their fit. My impression is that this year saw much more careful guarding against excessive fit in Ayrshires than has been the case in some past years. In some cases there was a tendency to overdo things in Holsteins and a few entries suffered because of it.

Size or scale and quality or refinement are not necessarily opposing factors, yet a tendency for the extreme in one direction is likely to mean

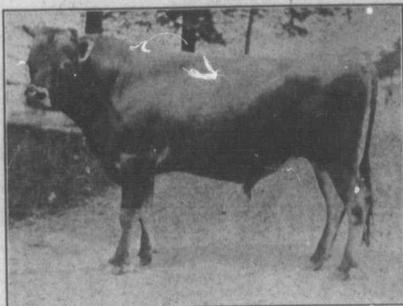
We have had our difficulties in draining as well as made our mistakes. Not many years ago it was almost impossible to dispose of our surplus water. To-day the "Ditches and Water Course Act" opens up the way. One of our mistakes was in using too small a size of tile, causing considerable work in after years in replacing with larger sizes. But tile draining has advanced beyond anything of which our fathers dreamed in spite of mistakes.—Jas. Hooton.

A Day with the Pinehurst Jerseys

Being the Story of a Little Visit with Chas. Ruiter & Sons by a Farm and Dairy Representative.

CHARLES Ruiter & Sons are well known in Jersey circles throughout Canada. In their own province of Quebec, they are prominent in all live stock matters. Their herd has achieved a reputation at the leading exhibitions of the province and the herd reputation as consisting of profitable producers, is even more enviable. It was because of their success in this latter line of work, that I was first induced to visit the Ruiter farm. I was talking with Prof. Barton at the last Ormstown Show and incidentally commented on the weak showing of Quebec bred Jerseys. "You must not take the Jersey showing here as representative of the Jerseys of the province," replied Prof. Barton, quick to defend his adopted province, of whose live stock interests he is the chief custodian. "Two of the most profitable herds in Quebec are Jerseys. I would recommend you to visit either Edwards and Alexander, or Charles Ruiter & Sons, if you would see Quebec Jerseys at their best. Both of these herds are good ones."

A couple of days later found me in the Bedford district and, taking advantage of the Professor's tip, I wheeled out to the Ruiter farm, about one mile from Cowansville, which, by the



Canadian Fairy Boy, the Herd Sire at Pinehurst.

her, he bred up a herd that to all intents and purposes were pure bred, but which, not being registered, were not so profitable from the stock standpoint. In breeding this herd, however, Mr. Ruiter and his sons gained valuable experience that has stood them in good stead since they purchased their first registered animals eight years ago. The first purchase consisted



The Buildings at Pinehurst Have Been Built With Jersey Dividends.

way, is one of the most beautiful rural villages that it has ever been my pleasure to visit. For my visit to the Ruiter farm I was amply repaid. Not only did I find a fine herd of Jerseys, but witnessed the results of a couple of most interesting experiments with alfalfa—for the Ruiters are well balanced farmers and, along with good stock, they run a well managed farm.

The farm itself I found to consist of 150 acres of slaty loam with 10 or 12 acres of sand and some muck. Only a little over a third of the whole is under plow, and there are frequent outcroppings of slate throughout the big, rough pasture. This small proportion of arable land is a characteristic of farms in the Bedford district. This feature, which is a disadvantage from the standpoint of crop production, seems to work directly to the advantage of the Jersey breed. Heavily bodied animals are at a disadvantage on rough, hilly pastures, while the Jersey fills the bill to perfection and consequently are numerous in the district.

The Herd Established

This farm was purchased by the senior member of the firm, Mr. Charles Ruiter, 33 years ago, its condition at that time being best indicated by the price paid,—\$3,500, \$3,000 cash and \$1,500 on mortgage. But we are more concerned with the development of the herd than of the farm proper. Mr. Ruiter purchased his first Jersey 21 years ago, a pure-bred female but not registered. From

bring the herd a little nearer to the ideal held by Mr. Ruiter and his sons of just what an ideal Jersey should be. "What we are striving for at Pinehurst Jersey Stock Farm," they told me, "is an animal weighing about 900 lbs., with a reasonably straight back, capacious barrel, large, well-shaped udder with good teats, handsome head and as much style as possible. Just a happy medium, so to speak; not as refined and delicate as the Island cattle and not at all coarse and beefy. They must also give us on the average when mature, at least 400 lbs. of butter each year. It has been our experience that if our Jerseys weigh much more than 900 lbs., they are inclined to be a trifle coarse and sometimes even a little beefy."

Dairymaid of Pinehurst, one of the matrons of the herd, may be taken as a specimen of the best cows in the Ruiter herd. Dairymaid is not a sensational producer, but she is very far from a poor producer and her record is all the more creditable when we consider that she repeats her good production year after year. As a two-year-old Dairymaid produced 296.8 lbs. of butter, reckoned on the 85 per cent basis. In her three-year-old form she produced 410.1 lbs.; at four years, 401.6 lbs.; five years, 483.3 lbs.; and six years, 428.8 lbs. Ponto, one of the first registered cows purchased, had a production last year of 444.7 lbs. of butter. Other records that I noticed were 467.8 lbs. of butter; 438.9 lbs.; 399.5 lbs.; 344.4 lbs.; 367.8 lbs.; 399.8 lbs. and 351.8 lbs. of butter. "And we have young cattle coming along which we are confident will do even better," Mr. Andrew Ruiter informed me.

The Ruiters have every confidence that further purchases of female stock are unnecessary. Their present herd sire shows the quality that they demand in a sire. Canadian Fairy Boy is a great grandson of Noble of Oaklands and a grandson of Raleigh's Fairy Boy, C. I. Hudson's \$8,500 bull. As I had my camera along, the illustration herewith will give a better idea of the quality of this animal than any word picture of mine.

The arable land, between 65 and 66 acres, is

(Continued on page 36)



Pure Bred Sires Have Always Been Selected After Careful Consideration of Their Probable Ability to Bring the Herd a Little Nearer to the Ideal.

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A Clear Cut Ideal of Just What Is Wanted Is the First Essential to Success in Breeding Ayrshires.

The Development of a Pure Bred Ayrshire Herd

Something of the Feeding and Breeding Methods of H. C. Hamill, York Co., Ont.

THE ill-starred first National Live Stock and Dairy Show, also the last of the name, was productive of more good than appeared on the surface; while it failed to bring out the visitors, it did succeed in bringing out some new exhibitors who have since been in the limelight to the credit of both themselves and their breed. Men who had never before ventured away from the local shows came to Toronto and did so well that they have been encouraged to visit our larger shows continuously since.

Among those who entered the greater show circuit through the medium of the National Live Stock and Dairy Show in the fall of 1913, was H. C. Hamill, Box Grove, Ont. Mr. Hamill did not make the "clean sweep" that sometimes falls to the lot of a new exhibitor. His Ayrshires, however, did get into first place once and were within the money in several well-filled and strong classes. Whether as a result of previous intention or because of his success at Toronto, we do not know, but the following month found Mr. Hamill at Guelph in another line of public competition.—The Winter Fair Dairy Test. Again his success was most encouraging. In the mature cow class he came second, in the class for three-year-olds second and in the heifer class he was first. Since then, Mr. Hamill has been a well known figure in the Dairy Test at Guelph and it was there that I became acquainted with this progressive York county farmer. I received many hearty invitations to visit the man on his farm, and a few weeks ago I accepted and spent a day with Mr. Hamill at Box Grove. There were many features there to interest me,—good farming, good business, good breeding. I will confine myself at this writing to the latter feature of his work.

Why An Ayrshire Man

In the public mind, Mr. Hamill is inseparably connected with the Ayrshire breed. "As we look back," remarked Mr. Hamill to me, "the most of us can see some factor, perhaps a small one, that influenced our course in some particular line. In my own case, I remember well two neighbors, one of whom had Ayrshire grades and the other Holstein grades. Farmers did not then understand the production of feed as well as they do now, and both of these neighbors fed their herds about the same and neither, in the light of modern knowledge, fed them well. The Ayrshires, however, seemed to thrive on the scanty rations and always looked well. The Holsteins on the other hand, were always thin. They did not attract me and this one incident, the com-

F. E. ELLIS, B.S.A., EDITOR, FARM AND DAIRY

paring of the two herds, I believe, started me out with the Ayrshire."

Mr. Hamill was born at Garden Hill, in the county of Durham, and it was here that he got his first impression of Ayrshires versus Holsteins. When he was 18 years old he formed a partnership with his brother, who was 16, and they rented their father's farm. When he was 23 and his brother 21, they bought a 200-acre farm together at Lorneville, in the county of Victoria.



Milking Time at Craigillea Farm.

—Photo by an Editor of Farm and Dairy

There they farmed for seven years before dissolving partnership, when the elder brother bought a 100-acre farm in Fenelon township in the same county. It was at Lorneville that Mr. Hamill came into the possession of his first pure-bred Ayrshire cow. All of the Ayrshires went along to Fenelon with him, where they remained for some time. The location, however, was far removed from a market for his pure-bred stock, so finally Mr. Hamill moved to the farm that he now occupies, less than a score of miles from the city of Toronto, and in an ideal position to meet the best class of Ayrshire buyers. Such in brief, is a history of Mr. Hamill and his herd.

Mr. Hamill's Ayrshire Herd

A clear cut ideal of just what is wanted is the first essential to success in breeding Ayrshires or any other kind of live stock. Mr. Hamill's ideal is well fixed. The cow that pleases him must

be of good size, with large digestive and milk-making capacity, with good teats and, above all, good constitution and proven producing ability. Mr. Hamill is not neglectful of breed type, but his ideal of type is not that of the show rings of Scotland. He prefers animals a little rangier, more open in conformation and with greater udder and teat development. He has been working for this type consistently for 17 years and has succeeded to a degree that would be satisfactory to most breeders, but which is far from satisfactory to Mr. Hamill. "Sometimes I seem to have accomplished so little," he said to me, "but after all isn't it the disappointments of breeding that give it its fascination?"

And I might add, is it not this discontent with achievements that is the very life blood of progress?

Sensational records are not striven for in the Hamill herd, but every cow is expected to qualify under Record of Performance regulations and every cow and every heifer are tested semi-officially. To quote Mr. Hamill again: "My ideal is a herd that will average 10,000 lbs. of milk each year and give five a living calf. I have no use for deferred breeding to induce an unnatural milk flow. I have been running my cows in Record of Performance for seven years and have never had a cow thrown down yet because she did not freshen in time. I never hold a cow back. I believe that a cow that gives 10,000 lbs. of milk each year for five years, and gives me six calves in that time, is more valuable than one giving 12,000 lbs. of milk in a lactation period, and calving only once in 15 months."

The policy followed by Mr. Hamill, therefore, closely approximates that which must be followed by the commercial dairyman and the records that he makes are a true index of the commercial value of his herd. Compared with records that I have been made in some other herds, however, they are not so large as the quality of the stock, or the attention they receive might lead one to expect. Many of these more sensational records, however, are not made under the normal conditions to which Mr. Hamill insists on adhering. But let us start at the beginning of Mr. Hamill's work as a taster.

Joins Cow Testing Association

"I bought my first pure-bred Ayrshire just 12 years ago," said he in telling his story. "I kept private records for 10 years and have been running in Record of Performance for six years. It was the Cow Testing Association Movement that

(Continued on page 38)

A Christmas Gift for You



HERE IS A SPECIAL CHRISTMAS GIFT OFFER to our farmer friends—and only good for the month of December.

With every 98-lb. bag of flour ordered between now and the end of the month, we will give an interesting novel or a cook book free. On and after January 1st, 1916, only one book will be given with every four bags.

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Sunset Crushed Oats	1.70
Manitoba Feed Barley	1.85
Barley Meal	1.90
Geneva Feed (crushed corn, oats and barley)	1.80
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Feed Corn Meal	1.70

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Our Experience Meeting: Wintering Horses

Another Budget of Opinions from Our Folks

Wintering Farm Horses

Ross H. Paul, Toronto Co., Ont.

CONSIDERABLE care and sound common sense are required in the management of the horse that has been heavily fed and worked during the summer and then suddenly changed to the practical idleness of winter. The heavy grain feeding causes a leaping and congestion of the blood that when followed by a clear idleness will, in the majority of cases, cause stumped legs, scratches, and often lymphangitis. This must be guarded against.

We often give our horses a physic composed of eight drams of aloes, followed by bran mashers in the fall after coming off heavy work. This cleanses and cools the blood, and helps put the animal in a thrifty condition; without which one-half the food is wasted. An organ that gives considerable trouble in many horses is the kidneys, and in order to keep this corrected we make a practice of giving a level teaspoon of salt-petre once a week. A horse will not eat so well if the kidneys are wrong.

The Winter Ration

After having gotten the horse in a thrifty condition we proceed in a rational way by feeding a rather laxative diet, composed of one part bran and one part oats or corn, fed rather sparingly when idle. The bulky ration is composed of hay and straw and some silage if we have no carrots for them. We do not give the horses all the hay they will eat as we find they do better on a limited ration. Some horses are very greedy and injure themselves by eating too much hay.

Neither should a horse be expected to subsist on straw alone as this is the bulky part of ration. The horse's stomach is small, as compared with the ox, and he therefore requires a more strength-giving food.

So much for food, now for exercise.



No. 2 After a Winter on Two Meals. Terms of Kenneth Burgess, Peterboro Co., Ont.

I like all kinds of stock, but my hobby is the horse; I do love a good horse, and it goes against the grain very much to see him turned out on a cold winter's day to roam over the fields; yet this is a very essential feature in the winter management of idle horses, seeing that the majority of farmers have not time to exercise all their horses otherwise in winter. They must have exercise and fresh air to keep healthy, and so we pull the halters off and give them their liberty when it is not storming or bitterly cold.

Another very essential feature is a well-ventilated stable. If a horse is kept over night in a warm, stuffy stable, and let out in the cold air in the morning, he is almost sure to take cold. So ventilate the stable. If you cannot do better, take out a window and tack a piece of canvas over it; this prevents drafts and ensures plenty of fresh air.

We have had splendid results by following this method of wintering our horses; they will come through healthy in flesh, and be in good condition for the spring work.

No. 1 In Working Condition.

Winter on Two Meals a Day
Kenneth Burgess, Peterboro Co., Ont.

WE find that when our horses come in, in the fall in good shape, as they always do, the best plan is to immediately cut off their grain rations altogether, until they get used to standing idle, this preventing them from stocking up in the legs. Later we start to feed them oats, at first only half a gallon a day, gradually increasing to half a gallon night and morning. They never get more than a gallon of oats in a day during the winter months. They are watered twice a day and when turned out to water are allowed to play around the yard as long as they will, but when they stop they are put in, never left to stand in the cold. A horse will always, if given a chance, take as much exercise as he needs but it is both cruel and injurious to the horse to make him stand in the cold. They are kept clean and warm throughout the winter. They have always all the salt to eat that they want; but it is never mixed with their food.

When we bring the horse out in the spring he is in good shape and when he is started to work he is fed, of course, three times a day, hay and three gallons of oats. When he works hard he gets fed all he can eat but when he is idle he does not need a lot of valuable feed wasted on him. It is always injurious and detracts from the value of a horse if he is fed as heavy in the idle months as in the busy months; then, when they are put to work they lose weight and it is much harder on them because they have more waste tissue to rebuild and nothing more to rebuild it with.

From the illustrations you will see the condition of the working horses. No. 1 shows the working team in summer feed on hay and three gallons of oats a day. No. 2 shows a mare to the right as she came out last spring after wintering on two meals a day ready for, but not yet started at the spring work.

Exercise Emphasized

J. M. Bryant, Bromo Co., Que.

MY winter feeding and management commences in the fall by giving my horses some fall feed, on the meadow and getting them well physiced out so as to get their blood in good condition when they come in the barn for Winter I commence gradually on hay by part feeding corn and a small grain ration. I generally feed one or two feeds a day of shredded roots with a little salt on the roots and ground feed on the roots. I find this feed keeps the horses laxative and they commence to gain and do well on light work. For grain I grind wheat and oats. We usually keep from two to four work horses. My cuts have roots.

We find no trouble to keep our horses exercised as we live about 10 miles from market, which we go once or twice a week besides hauling manure and wood along with a job or so such as breaking roads, and exchanging calls and gossip with the



In for the Winter

—shut away from the foods that nature provides for laying hens. She will lay if you supply her with protein—the material she needs to produce eggs. GUNNS Shur-Gain Beef-Scrap is rich in protein. It takes the place in the winter rations of the stubs and worms a hen picks up in summer.

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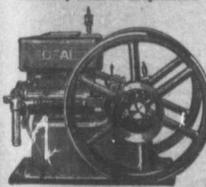
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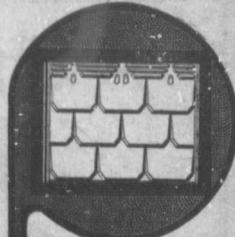
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neighbors one or two evenings a month in winter.

This year I bought a one horse tread power with saw rig "second hand" for \$25. I thought it would be good exercise for the horses a half day a piece at odd times and perhaps exchange time with some of the neighbors. Also it will be handy to cut roots, separate milk, etc. I use a good dog tread power with a calf for summer separating and calf does fine.

If my horses have a cough in winter I dissolve a small handful of salt in a couple of quarts of water and dampen the hay for a few times and the cough soon ceases. I have great faith in salt for different purposes for horses—to keep away cough and colic in winter as our horses work in winter is uneven.

For condition powder and to drive away scratches I feed three mornings and skip three and so on, "a tablespoonful" of $\frac{3}{4}$ lb. cream of tartar, $\frac{1}{4}$ lb. ginger, $\frac{1}{4}$ lb. sulphur, and two ounces salt per,

Cheap Roughage; Little Grain

Ernest R. Summers, Dundas Co., Ont.

If our horses are in a thin condition when fall work is finished we feed them carefully with a bran and oat ration till in good shape. Once they are in good shape they are easily kept that way.

The daily ration consists of oats on the straw in the morning, straw at noon, and hay in the evening. Some times we give them ensilage at noon. In addition to this about three quarts of bran and oat chop is given them; that is, a quart to the feed.

About five or six weeks before spring work starts we increase the horses ration gradually until he is on full rations about three weeks before going to heavy work. We also increase his exercise if possible to harden him.

We try to keep them all in exercise all the time if possible by drawing away the manure and getting in our ice supply for the summer, and all other odd chores, always changing teams every day.

We often on nice days leave them out for a run about an hour each time, if the yard is not icy. We generally give them some good condition powder to keep their blood in good order.

A teaspoonful of sulphur is given them once a day for a week, then we miss a week and continue this almost yearly.

Feeding Idle Horses

Samuel Saravara, Waterloo Co., Ont.

I generally start feeding my horses a day or two before they are through with my fall work. I feed as a rule about a gallon of oats when at work every day. But about the last day we feed three quarts and all the hay they will eat. As soon as they are idle I feed about half that amount for a few days and also feed a little wheat straw. Then I start and feed sugar mangels every night to keep the digestive organs in good working order.

I keep this feeding up for a week or two, as I do not believe in too great a change at once, and then use wheat chaff or fine straw and make a mixed feed, chaff preferred. I take about five quarts of chaff, two quarts of oat chop, one quart bran, four quarts ensilage, and about two pounds of hay always before milking and all the straw they will eat afterwards. I feed all my horses the same colts and all. I keep this method up until the latter part of March, then I quit the straw and feed hay. I also quit the mixed feed at noon and feed half a gallon of oats to harden my horses.

The main thing in handling idle horses is exercise. I have a small field adjoining my barn yard, which I let the horses in every day, no matter how cold as I always think cold

Our Next Contest

"What equipment do you find most valuable in facilitating work in the dairy stable in winter?"

For the best answer to this question received on this week's contest, see page 1045, Dec. 17th, we will extend the writer's subscription to Farm and Dairy for one year. For all other replies published, and we publish acceptable replies, we will extend the writer's subscription for six months. In answering this question a dairy farmer should fully state the advantages of some one particular device, such as a litter carrier or watering system, or deal more generally with all the labour-saving equipment he has in his stable.

Mr. Ross H. Paul has secured first premium in this week's contest in economical feeding of work horses in winter. Several other excellent replies were received, a few of which are published this week, and others will appear in future issues. These writers are all having their subscriptions renewed for six months or a year, and at the same time are giving to other farmers the benefits of their experience. "Our Experience Meeting" promises to be a valuable feature of Farm and Dairy.

does not hurt them when running loose. But I never turn them out when it is rainy as I do not think it is good for a horse to get wet in winter time. I also think the method a good one for brood mares as you can regulate their bowels just as you wish. We know that brood mares do not want to be too dry in their bowels, as we think the colt will be the same when it comes, so by using cut or mixed feed I can just regulate the bowels by using more or less straw as the case may be and be sure and do not forget grooming and exercise.

Keep Fat and Warm

F. J. Ross, Rutherglen, Ont.

THE first essential to wintering a horse economically is to keep a well sprung rib. Those big loose, raw boned horses will eat a half more and give the feeder no credit for it.

I have my horses in as good flesh as possible and I feed them a good feed about the same quantity of grain as I feed while working until my horses are pretty fat, which usually takes about three weeks. During this three weeks I feed less hay as too much hay is bad for horses. Then I gradually decrease the grain ration until they are getting about two gallons each of oats a day.

I am very particular about daily exercise. I make a trip to the woods a lot and take some logs to the saw mill or a trip to town, but an careful not to over-drive them as a horse should be used as a careful exercising him as working him. I keep my horses in a warm well ventilated stable with a light blanket and keep them well bedded and brushed. About March 15th I start to increase the amount of oats until I feed three gallons a day to each horse, and by the time spring work starts my horses are ready and willing to enter another winter keep and also tire out the man that is driving them, if he has not a good soft cushion on the hind arrow. Keep the horses very fat and warm and they do not cost much over winter.

Horses with clean coat and clean feet escape many common ills.

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Two Big Problems Discussed in a Big Way

A Report of Addresses at the Third National Conference on Marketing and Farm Credits.

"AGRICULTURE taken as a whole in this country, has not prospered," said Dr. Frank L. McVeey, in opening the National Conference on Marketing and Farm Credits in Chicago last week. "It is agreed that there must be changes. These changes must be centred about three things: (1) Better agriculture, (2) better marketing and (3) better financing." The first factor in making farming more profitable—better agriculture—the speaker considered was well taken care of by the work of the departments of agriculture, farming associations and the training afforded in schools and colleges. He continued:

"The fact is that the markets and the finance of agriculture remain as they have been for the past quarter of a century. The farmer is still compelled to rely upon the market machinery with which he has had little or nothing to do in the matter of its organization. Between the farmer and the consumer there is a great commercial and financial gap."

These few words gave the purpose and the spirit of the conference held at Chicago last week. The farm papers have long recognized that while instruction in production may be sufficient for agriculture as a profession, it is inexcusably insufficient to equip a man for the business of farming. Accordingly, a great conference was called at Chicago over two years ago to discuss the business end of farming. At that conference there were almost 400 delegates representing 38 states of the American Union and four provinces of Canada. The conference has been continued each year since, and the attendance at the third annual event last week was fully twice as great as at the first conference and was more widely representative of the states and provinces that comprise the North American continent.

It was a conference for farmers, but could hardly be called a conference of farmers. Agricultural colleges, the farm press, the state and the railroad interests, were all largely represented. There were organizers of farmers' movements, managers of co-operative farmers' associations and the small minority of practical working farmers. A few were there to see that their own interests were well looked after. For the most part, however, an honest attempt was made to throw more light on the exceedingly difficult problems of farm marketing and farm finance. On each morning of the conference, which lasted four days, a general meeting was held. In the afternoon two separate meetings were held concurrently, one for the discussion of marketing, the other of finance. We can do little more in this issue of Farm and Dairy than give the briefest outline of the character of the addresses. In future issues the business accomplished will be reviewed and some of the more important addresses given in full.

Farm Marketing

As might be expected, the marketing talks largely centred around means and methods of cooperative organization. Sir Horace Plunkett, who has under his wing 105,000 Irish farmers in 1,000 cooperative associations, journeyed across the Atlantic to give to America the benefit of his experience in Ireland. The weak spot in American rural economy, he described as a lack of business organization on the part of the farmers. He fully recognized the difficulties in the way of American cooperation but held that "cooperation is the best. I might almost say the only, foundation

for a rural community." In the accomplishment of the cooperative ideal, he advocated that the state give its aid to the cooperative movement, but in such a way as to secure to it the greatest freedom and so tend to develop individual initiative.

This view was not held by Hon. David Lubin, who was so largely responsible for the formation of the International Institute of Agriculture at Rome. He was out and out for straight state action in organizing the rural population. He had but little faith in the ability of the American farmers to organize themselves and spoke in laudatory terms of the perfect agricultural organization achieved in Germany under autocratic authority. "German farmers, originally," said he, "were not brighter than the American farmers. In fact, they were not nearly as bright. It is only now when they are operating under their effective economic systems that the German farmers have become bright, the brightest farmers in all the world."

Farmers Can Cooperate

The strunest confutation of Mr. Lubin's charge that farmers "are too conservative to devise systems, or to pioneer the way for the adoption of changes," was given by the one Canadian speaker at the Conference, Geo. F. Chipman, editor of the Grain Growers' Guide. Mr. Chipman told a story already well known to Canadian readers, of the organization of the Grain Growers' Grain Company, purely on the initiative of the farmers themselves, and in the face of the strongest opposition of powerful enemies. "These farmers' companies," said Mr. Chipman, "are now the biggest single factor in the grain

(Continued on page 16.)



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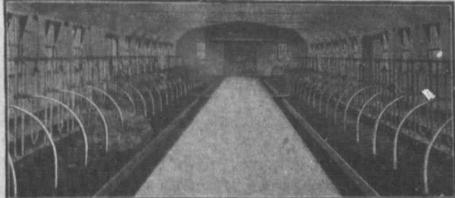
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George Keith The Farmer's Seedsman

A Chronicle of his Beginnings and Service and an Appreciation of the Man.

By JOHN C. KIRKWOOD

IN 1839 was born in the parish of Longside, Aberdeenshire, 30 miles from the Granite City, George Keith. He was 15 years on a farm and spent the first 15 years of his life in tilling the soil.

Quiet lad though George Keith was, there was in him a desire for a larger and more stirring world than was represented by his father's farmstead, and so in his 16th year he left home to become clerk and salesman in a shop in a nearby town. Here he remained for four years acquiring a useful experience and preparing himself for his next adventure—in the straits of Canada. An older brother was already in this alluring country, and doubtless it was this fact that influenced George Keith to cross the seas in 1858 to begin a new career in Upper Canada.

The "fifties" constituted an important decade in the annals of British North America. There was a period of political turmoil and of "first things." It is interesting to look for a moment at some of the projects, events and achievements of these years:

A treaty for facilitating the construction of a ship canal between the Atlantic and Pacific Oceans, was made between Great Britain and the United States—a dream which was destined to be many many years in coming true.

Canada began to issue her own postage stamps.

Decimal currency was introduced into Canada.

The first passenger train between Montreal and Toronto was run.

The suspension bridge at Niagara was crossed by a railway train for the first time.

The Allan line of steamships was established.

Ottawa was named capital of Canada.

The first Agricultural exhibition in Canada was held at Montreal.

In Politics, men of might were John A. Macdonald, Sir Allan McNab, Francis Fincks, G. E. Cartier, E. P. Tache A. N. Morin and John Hilliard Cameron. Lord Elgin was Canada's Governor-General.

To those of the present generation, these pre-Confederation days seem very remote. The "bush" in Canada when George Keith came to this country was everywhere and "roughing it" was the common and expected experience.

George Keith's Beginnings in Canada. On his arrival in Canada, George Keith went to Whitley. Here he "clerked" for two years in a country store. He then went home to Scotland. Two years later he returned to Canada and to his old employer, remaining with them for a year. Then he went west into 1869.

This coming to Toronto was the real beginning of George Keith's life occupation—the business of seedsman. From that day to this, his sole vocation has been the buying and selling of field seeds—particularly clover seed. In the half century that has passed since the opening of his modest premises at the Toronto Market,

Mr. Keith has been serving the farmers of Ontario and Quebec with rare fidelity. More, perhaps, than any other seedsman in Canada. He has been the apostle of good seed.

The Seed Business 30 Years Ago. It was a brave thing for a young man of 26 to open up for himself in Toronto in the seed business, but success from the beginning and ever since attended the venture. Mr. Keith was not without experience in seeds. At Whitley he had become familiar with this line of merchandise and so it was with some confidence that he opened up in his own name. Capital the savings of was provided by his own thrift and by the bank.

Toronto then.

George Keith, Jr.

as now, was the centre of a thriving agricultural community and the market location was ideal for securing farmers' trade. A wholesale trade was also done, and shipments were made to Brampton, Guelph, Galt, London, Stratford, Orangeville, Port Hope and other centres.

Fifty years ago turnip seed was in very extensive demand. Mr. Keith imported his seed from the old country. A notable order received in those long-gone days was one for two tons from a buyer in Guelph. To-day turnip seed is sold in comparatively small quantities, mangels having replaced turnips in farmer's favor.

The labor difficulty is perhaps the explanation of the change from turnips to mangels, but Mr. Keith laments the altered state of things. He recalls with pride the cattle on his native farm and in his native shire-cattle fed on turnips and oat straw, enriched with tender clover tops which are reaped when the grain is cut and which went bovine appetites. Aberdeen-fed cattle fetch the highest price in the London market because of the prime quality of the beef. The passing of the turnip—or its eclipse—is not viewed with approval by the man from Aberdeen.

Fifty years ago and to-day as then, the big end of Mr. Keith's business was red clover seed. Clover seed does best on new land and a half-century ago, there was much new land in Ontario—those parts which we now call Old Ontario. So fine yields and fine samples were very common. Mr. Keith recalls with obvious pleasure the names of the farmers from whom

he bought good samples and sizeable quantities in those bygone years. In this he resembles the collector of old furniture or rare porcelains, or the big-game hunter whose notable discoveries and achievements are indelibly stamped on their minds.

Sometimes substantial profits were made by Mr. Keith as the result of his having plentiful stocks and of a "jump" in the market. Once the price soared \$2-\$3 a bushel above the price at which the seed had been bought. "It was a good lift for a young man" was Mr. Keith's way of putting it, but behind the quiet speech was a sparkling eye and the glint of a smile as he recalled the quick and big stride forward on the way to fortune.

Moving to 124 King St., East. It was not long before the market premises became inadequate for the expanding business and so the present building at 124 King St., E., was procured. This location has continued ever since to be the home of the Keith business. As time passed additions for warehouse requirements and for the cleaning of seeds were made, until now the buildings in the rear quite outrank in the matter of amplitude the original structure. Mr. Keith became an exporter of clover, shipping to England and the Continent chiefly and occasionally as the needs and opportunities developed to other overseas countries. One memorable season's shipments amounted to between 70 and 80 cars the equivalent of nearly 15,000 bags, in money over \$300,000.

To George Keith's credit belongs the distinction of introducing alskise clover to America. On his father's farm in Scotland he was familiar with al-



George Keith, Sr.

skise. This clover did very well there; he would try it in Canada. So he had a small quantity shipped to him and this he gave to two farmers, Mr. Ferguson and Mr. McCallum, of King township, to grow experimentally. The results justified Mr. Keith's confidence in the adaptability of this old-world variety to Canadian soil, and soon alskise growing became a highly profitable business for many farmers in Ontario. The new clover sold at fancy prices and yields were large. Some farmers grew rich out of their operations in this business deriving from \$1,000 to \$2,000 from the crop of a 20-acre field. "How much did you get for your alskise?" Mr. Keith asked a farmer acquaintance on one occasion. "Nae muckle" was the reply. The "Nae muckle" was \$18 a bushel, and this for the yield of a 12-acre field at eight bushels to the acre.

But the business of alskise growing in Ontario—in Old Ontario at its rate,—is not what was once. This is explained by a sort of reaction in its growing and by the fact that it is increasingly difficult to obtain equal yields and samples. Land "plays out" and gets dry and since the government has stepped in to grade the seed

sold by dealers and to prevent the sale of dirty seed, alskise growing in Ontario has become more difficult. In Canada the farmer has not learned to conserve soil strength as have the farmers of Great Britain, Norway, Sweden, Denmark, France, Belgium and Germany. Five or eight bushel yield of alskise in this country is large and the average away below these figures in England, and 7½ bushel is normal yield in Northern Ontario to the Rescue.

The best samples of both red and alskise clover produced in Canada are now coming from New Ontario. The virgin soil of this new country with its virility and its comparative freedom from noxious weeds, is admirable for the growing of clover seed and for all the coarser grains—oats, wheat, barley, and peas.

In our northern climate, both red and alskise clover do better than in hotter climes. The beautiful, dark purple color of such clover seed, and demanded by the connoisseur, is characteristic of the clover seed grown in Canada. In Chili on the other hand, the clover seed sown on its table land although larger in grain is weaker in color and more weedy.

Very rarely does England produce a good crop of red clover, when it does the seed is unexcelled as it is not only larger in grain but the color almost equals that of the best Canadian seed of clover. Alskise has ever been grown in Ontario.

Clover Markets

Prior to the outbreak of the war, Hamburg in Germany was the first clover market for the sale of both red and alskise varieties and in this city George Keith & Son had their own broker. This large and important market has for the present at least been taken away. In Britain, London and Liverpool, Glasgow and Edinburgh, are the clover seed markets. In North America, Toledo, Ohio, holds the distinction of being the chief clover market centre. In older days it was Buffalo. In the matter of timothy seed, Chicago is the arbiter of prices.

Contrary to the opinion held by many, clover seed does not deteriorate from year to year if kept right. The proper keeping conditions call for a dry, not too dry temperature. If too dry, the clover is apt to lose its color. Clover seed contains 80 per cent of oil, and this large proportion of oil is nature's method of protecting and maintaining the life within the seed. Well-kept clover will germinate with a minimum at the end of a dozen years.

Harvesting, Threshing and Cleaning Clover.

Perhaps the obstacles in the way of a large production of clover, both red and alskise varieties by Canadian farmers, are the difficulties met with in harvesting, threshing and cleaning the seed. The harvesting must be done at exactly the right time, else much seed is hopelessly lost, this imposes a burden of watchfulness and preparedness, quite distasteful to the average farmer. In the threshing of red clover, the chaff is hard to get off and not always and everywhere are good clover hullers available. In the case of alskise the dust is heavy and nauseous and clogs the eyes. But the cleaning of the clover presents the greatest difficulties of all and practically speaking, can not be done effectively by any but the professional seed cleaners with facilities which no farmer possesses.

In red clover seed the "rogue" most difficult to eliminate is buckhorn. There is only one known way of getting rid of alskise rogues.

(Concluded on page 28)



Meditation

H. Percy Blanchard, Hants '60, N.S.

THE Psalmist tells us: "O how I love Thy law! it is my meditation all the day." Little do we realize the influence upon us our meditations have. As we drag along a country road behind a loaded team; as we travel interminably back and forwards across the rough field on the disc harrow; or patiently go over row by row, thinning or hoeing the roots; our immediate work supplies little to engage our thoughts. What is the burden of our mind? Are we thinking of some petty disagreement with a neighbor; weighing the words we will use toward him when next we meet, or regretting that we failed to answer him in some certain clever and cutting manner?

Or are we planning some future crops or cropping methods or tillage for our field; or ways and means of marketing to best advantage what we are working on? Or maybe on our mind is a book that we have read on land taxation or cooperation, or some newspaper article on free wheat; or maybe we are studying mentally our next Sunday school lesson. Some-

time, it is one thing, sometime it is another; for a brain that is any brain at all is never idle during the waking hours. The "wise man" says of a man "As he thinketh in his heart, so is he." It is not what he thinks he is; for his conceit may be bigger than his kidney. But it is the consensus, the general average of what he thinks in his heart; that mental chewing of the cud as the mind passively meditates or ruminates, that is the man. A man in the hurly burly of the day's work, actively engaged in what comes to his

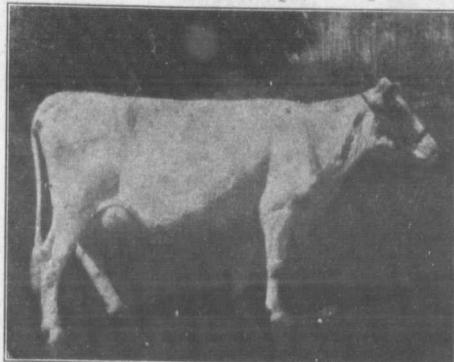
hand, is merely his energized environment; and what we see is like the swirl of some fluid in violent motion. It is when motion stops and the scum floats, and the substance is precipitated, and the fluid vehicle becomes clear, that we are able to analyze the composition. Is it the scum or is it the cream that rises to our quiet mind on such occasion, is it heavy gold or only dregs that occupy our brain as unconsciously we study, out the thing that has got the mental right-of-way?

If there is one thing for which the

farmer is to be envied, or, on the other hand to be pitied, it is for these hours when his mind is released from the unconscious toil of the hand, to pursue its own unhindered way in the realm of thought.

At school, a boy gathers together numerous facts; he learns how to calculate and ascertain other facts. But he has done no more toward his real education than has the man who buys a chest of tools because a carpenter. It is by the constant and each day more efficient use of these tools that he becomes a skilled artificer; but mark you, the tools must first be had.

The college graduate, with nothing to show for his studies but a mass of facts stored away in his mind, is not educated; he is merely a mental deposit bank. It is this meditation, rumination, chewing of the cud, that must first precede the true digestion, and ultimate nourishment, that makes the educated man; and given these precious hours for such study and meditation, it is no wonder that you find among our farmers so many men of true and real education.



A Queen Among the Ayrshires.

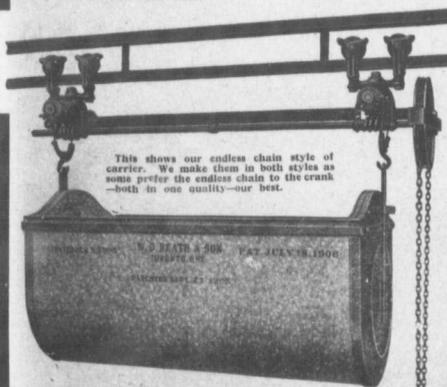
Few dairy animals can show as wonderful udder development and veining as Duchess of Montebello, from the big herd of Hon. Senator Owens. She combines everything desirable in the ideal dairy animal—type, production, constitution—all of which combined to place her at the head of her class at the 1915 Ottawa Fair. From such as the Duchess come the winners for future exhibitions.

There has been issued at Ottawa a new edition of Bulletin No. 13 of the New Stock Branch, "Best Raisings in Canada." It is available on application to the Publications Branch of the Department of Agriculture. Upwards of one hundred pages, and nearly as many half-tone illustrations, conveying valuable information, are given. Among the contributors are many of the best informed and most experienced beef raisers and experimenters in Canada. A section is devoted to descriptive accounts of the various breeds of beef cattle raised in this country, while practical information on breeding, rearing, housing and marketing is also contained.

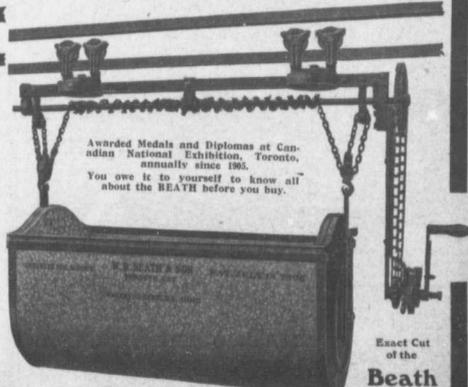
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THESE TWO MACHINES are built the best we know how after an experience extending over twelve years. Each machine has heavy steel frame—all track wheels turned true and independently swivelled to take shortest curves without friction or crowding. Heavy back gearing permits easy hoisting.



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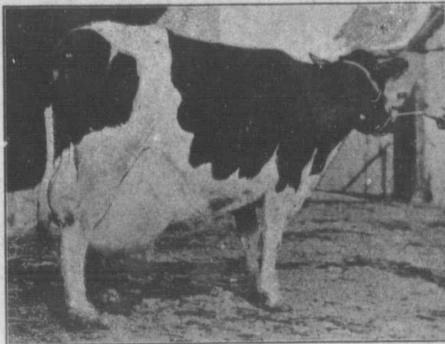


Approved Poultry Methods

PROF. J. B. Reynolds, in the year 1914, had a total income of \$189 from his poultry and an income over and above cost of feed of \$96.83 on his farm near the Ontario Agricultural College. We gave an itemized account of Prof. Reynolds' receipts and expenditures in the last Poultry Number of Farm and Dairy. The following additional information sent to us by Prof. Reynolds will be of interest to Our Folks who keep poultry, as did Prof. Reynolds, for the money there is in them.

"I keep two breeds, White Leghorns and Barred Rocks, both of them from Professor Graham's bred-to-lay strains. We hatch some chickens under hens, but mostly in incubators. We wintered about 90 hens, 1913-14, and the proceeds given in Farm and Dairy, Feb. 4, are from that number. We feed the young chicks Purina for the first three weeks; after that wheat with pigeon grit always accessible, plenty of clean water and sour skim-milk when obtainable. After they begin to roam we feed only twice a day in the summer, as they have unlimited range.

"We dispose of surplus cockerels in the fall, and shut up the pullets when hard frosts comes. The winter ration is hard grain, morning and evening, with a boiled ration at noon, consisting of oats and turnips mixed with meat-scrap, about one-fifth of the total feed being meat-scrap. The meat scrap we get at the local pork pack-



One of the six cows in the herd of D. C. Platt & Son of Hamilton, Ont., that has given over 100 lbs. milk a day. Sires from such dams are worthy to head the best of our Holstein herds.

Sweet Cream Wanted

We are in a position to market butter direct from our milk waggons to the consumers enabling us to pay farmers highest prices for cream. Write us before you go elsewhere about taking all your cream for the coming winter. We supply all cans. Ship by express.

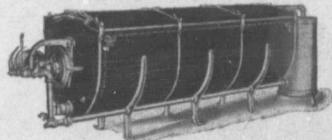
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With a BEAVER-JENSEN PASTEURIZER in your plant, you can always be sure the milk delivered your patrons will be sweet—have a cream line—be free from contagious diseases—and will be prepared for distribution at a minimum of expense.



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ers. The first winter we found 10 or 12 bushels of weed seeds on the barn floor left from the cleaning of the fall wheat. This we boiled and fed to the chickens. But now we do not grow many weeds, and have to use grain instead."

About Turkeys

WHEN the Pilgrim Fathers first reached the New England shores in 1620, the woods of the section were alive with turkeys. Although this fowl was exclusively found in North America in its wild state, the earlier naturalists supposed it to come from the East Indies and Africa, and that it originated in Turkey, from which it received its name.

Unlike the goose, the turkey never ducks his head to enter a place. It is said of a goose that she will duck her head even when going under the tallest arch. An old-time sportsman says that he used to trap wild turkeys in what was called a turkey pen. This was made of fence rails, and the earth removed from the outside to the depth of two feet, the earth on the inside being a few inches higher. This trap was baited with a trailing of corn for some distance outside to the inside of the pen. The turkey would walk in following the bait, but once in he could not get out without low-

ering the head. He said he caught entire flocks of them in that way, and never knew one to escape from the trap after once entering.

Medium-sized but plump turkeys are marketable all the year round, so that at any time when there is a surplus they may be sold at fair prices, but to secure the best prices they must be young, and in good marketable condition, not too fat and not too large.

An expert poultryman says that when he feeds ground oats he first scalds with boiling water, and mixes rather dry so the ball will roll to pieces when thrown on the feeding board or in the trough. He never puts enough water in the food so as to have the balls glisten in the light, or to make a sticky, parridge mass which clings about the beaks of the fowls and gives them infinite annoyance, besides often causes diarrhoea. In mixing he always uses his hands so that the mass can be squeezed into balls.

The young man who farms as well as his father did, but no better, is not as good a man as his dad. He did not have our opportunities, and it is up to us to do a little better than our fathers.



An Honor to the Herd She Represents.

Midnight Comet De Kol (1909), has just completed her test with 879.9 lbs. milk, and 24.36 lbs. butter in 7 days. In 14 days she made 1217.7 lbs. milk and 62.27 lbs. butter. She took 1st prize and special at Quebec Winter Fair, 1914, in the three-year-old class. Surely here is combined both type and production, in the herd of James G. Currie & Son, Ingersoll, Ont.

Most of us
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Course

Most of us waste enough time for self-education. By the use of our spare moments we shape our destiny.—Selected.

Farmers of To-morrow

A Department for Ambitious Farmers' Sons

Don't thou value life? Then do not squander time for that is the stuff life is made of.—Benjamin Franklin.

Approved by Authorities
THE Farm and Dairy Correspondence Course in Agriculture has received the hearty approval of many of the leading agricultural authorities in Canada. Some time ago we wrote some of our leading men in agricultural educational work, enclosing an advanced impression of our introductory article, as published in November 25th issue of Farm and Dairy, and explaining our plans for conducting the course. We also requested that they give us their opinion of the course which, if favorable, we felt would be of material assistance to us in bringing it to the attention of the farm boys of Canada. The replies which we have received have been most encouraging. In

Dairy, with the particular object of assisting young men who have no opportunity of attending a training institution, and in connection with which you say it is proposed to depend very considerably on government bulletins.

"I may say that I often thought of the position of a great number of young men who, either through lack of opportunity or desire, do not have any training at Agricultural Colleges or schools, and so work along quietly on the home farm, copying the methods of their fathers without making any effort to improve upon these methods, which very frequently are such as have been in vogue on the home farm for many years.

"I wish you every success in your plans, as I do not think of anything that could be tried in connection with such young men more likely to benefit them than something along the lines you propose."

W. Bert Roadhouse, Deputy Minister of Agriculture for Ontario, writes:

"I beg to acknowledge yours of 20th inst., with enclosures, in reference to the interest which you are taking in the educational needs of the 'big boys' on the farm. I have also read over your very well written announcement on this subject. I have always been strongly of the opinion that the education of those whom you aptly designate as the Farmers of To-morrow is one of the most important matters at the present time, and this Department has been endeavoring to do what it can along these lines, especially during the past few years. I feel that too much effort cannot be directed to these matters, and I trust that your efforts will be as influential and helpful as the enthusiasm you are personally putting into it would deserve."

With strong words of approval from men in such high places of authority in agricultural matters, our Correspondence Course in Agriculture should commend itself to all those "Farmers of To-morrow" who wish to spend their winter evenings in such a way as will enable them to become more proficient in their great and noble calling.

New Application of an Old Idea

CORRESPONDENCE work is not an innovation. Five years ago it was estimated that the Correspondence Schools of the United States had taken \$5,000,000 out of Canada in tuition fees. Some of the leading universities on the Continent include teaching by this method among their activities, the great University of Chicago being one of them. On both sides of the international boundary there are institutions for giving instruction by mail in almost every line of work except farming. It has remained for Farm and Dairy to design a really practical correspondence course in practical agriculture, and ambitious farmers' sons need go no longer without special training in the problems pertaining to their life work.

Things Worth Remembering

THAT your neighbors are good people.

That good neighbors are the result of good neighbors.

That no community can rise higher than the average level of its people.

That discussion, publicity and education will raise the average level of any community.

That the strongest community is the best organized one.

HAVE you decided to get right down to business this winter and make real progress in development along agricultural lines? Your success in life may depend on your decision. The Farm and Dairy Correspondence Course in Agriculture is designed to help you. Write for information.

DO NOT WAVER—DECIDE NOW

Farm and Dairy, Peterboro, Ont.
 Dear Sirs,—Please send me full information regarding your Correspondence Course in Agriculture.

Name

Address

every quarter it is recognized that a great need exists for some means by which farmers' sons past school age will be assisted in their great work of self-education. The assistance which will be given them by our Correspondence Course has been clearly seen by those who, of all men in Canada, are the best qualified to judge. The following are some of the letters received:

Principal F. C. Harrison, Macdonald College, Que., writes:

"I beg to acknowledge your letter informing me that the editors of Farm and Dairy have decided to establish a Correspondence Course in Agriculture, and enclosing an advanced impression of an introductory article to appear in your issue of Nov. 26th.

"This new departure of your paper should be of great value to farmers' sons who are unable to attend an Agricultural College, and who may be inclined to give up some of their spare time for systematic development along agricultural lines. The subjects that you propose to deal with are all practical ones, and I think that your effort ought to result in bringing a large amount of information to farmers' sons.

"The great success that the Correspondence Colleges have had in the United States, seems to show that courses of this character are appreciated by many workers. I should think that this endeavor ought to be a successful venture for your paper as well as a great help to the ambitious farm boy."

J. H. Gridale, B.Agr., Director Dominion Experimental Farms, Ottawa, Ont., writes:

"I have your letter with respect to the arrangement you are making for the starting of a Correspondence Course in Agriculture in Farm and

Farm and Dairy's

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Sometimes when we have almost decided to return to our former policy of stopping the paper as soon as the subscription expires, along comes a letter like this expressing the gratitude of an old reader for carrying him on until he will have the ready cash to renew his subscription. Then we decide to keep on sending the paper when it accommodates so many of our readers to do so.

Now we are getting near the end of the year. Upon going over our subscription list we find that quite a number of our old subscribers we will have not yet renewed. We want to clean up all

Renew Your Subscription

these subscriptions that are in arrears before New Year's Day. In order to do this we are making this great renewal offer for one month only. Take advantage of this unusual offer. We will both start off in 1916 with a clean sheet.

OFFER NUMBER TWO

The Christmas season is upon us. You are now looking around for suitable Christmas gifts. Did you ever think what an acceptable Christmas present a year's subscription to Farm and Dairy makes? It keeps coming week after week throughout the whole year, a constant reminder of the cheer and good wishes of the festive season. Then your friend may get an idea from it that would be worth \$25 to him. A present that will so multiply in value is the one that is most appreciated. We have a special offer to make to you by which you can make this desirable Christmas

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present at a very little cost. Or perhaps you have a neighbor whose subscription to Farm and Dairy you can secure at \$1.00 for the year. If so, just take his subscription, add another dollar to it and send to us. We will send

him the paper for a year and renew your subscription for two years. By following this plan you will be securing Farm and Dairy for two years for only One Dollar.

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Two Big Problems Discussed

(Continued from page 11.)

trade of Canada, and it is only a matter of a few years when they will market three-quarters of the Canadian grain crop. It is also expected that in the future, they will go into flour milling and possibly the operation of their own line of steamships for the transportation of their grain."

D. McCready gave another instance of successful cooperative initiative on the part of the farmers, this time in Wisconsin. The farmers of Sheboygan Co., Wis., had good reason to believe that they were not getting value for their cheese. Several hundred factories combined into a selling association with Mr. McCready as manager, and this association now sells 7,000,000 lbs. of cheese annually by cooperative methods. Mr. McCready emphasized strongly the efforts that his association was making to standardize their output. The necessary of establishing standard grades for farm products, was even more strongly emphasized by Charles J. Brand, chief of the Bureau of Markets of the United States Department of Agriculture. He said that accuracy in standardizing products, means a smaller margin between the price paid by consumers and the price received by producers. "We can never have much progress until the buyer and the seller are discussing the commodity in the same terms and that means that we must have grades and standards, not only as to quality, but as to packages and containers."

National Standardization Advocated
He advocated standardization by the national government of containers for all farm products similar to the standardization by federal authority of the apple barrel and box in Canada. Speaking along the same line, Dr. Charles McCarty, of Madison, Wis., favored a plan which would permit producers carrying out certain standards to meet a label or brand issued by the state, but in selling to the consumer that the states have inspected the products and found them to be within the requirements of the rules of the marketing commission.

He agreed that such standards could not be accomplished by law alone. Organization among the producers would be necessary to make such legislation effective.

E. W. Hockaday, agricultural agent of the Missouri, Kansas and Texas railway, emphasized the necessity of better distribution of farm products, mentioning the tendency of growers in his part of the United States to ship only to the three big markets—St. Louis, Kansas City and Chicago. Buyers from smaller places must of necessity go to these centres to get their supplies, and the prices set on these over loaded markets are lower than they would be were the crop properly distributed. Geo. P. Hamman, of Washington, secretary of the National Marketing Association, preferred to regard the farmer as a producer only, and held that the banker, merchant and railroad man constituted the team on which falls the task of successfully marketing the products of the country, and he attributed unsatisfactory marketing conditions to the failure of the members of this team to work together.

This brief summary of the marketing end of this conference, we know, does not and cannot do justice, but the valuable material presented will be given more fully in future issues. On certain great principles the delegates were unanimous. They agreed that "very truly cooperative society must go on the principle of 'one man, one vote'—a fixed dividend on all capital subscribed and a division of the profits according to patronage.

The discussion of rural credit sys-

This team

tems, as brought out to the part of the organization and out there are, some breeders. Bankers' the relation mortgage of 26 of pro farm a 84¢ per c twelve this is propos should chi one and s 62½ cent he consid as compar receive have assu Mr. Thom absolute B.

This ad mortgages confined to than pers with loans The prob absente serious on the confer len of fin mard his seric him come was by Chas.

"In the Kansas, vania, ten by 131,167, owing fad by 62. her sister about the American Forty year tenant far farms in farmers h per cent State."

Ro "re" pe in on ca the ax

Profitable Ayrshires

I AM giving an account of proceeds from my eight registered Ayrshire cows for the year from Oct. 1st, 1914 till Oct. 1st, 1915. The bunch consisted of three two-year-olds, one three-year-old and four mature cows.

Besides the milk and cream used in a family of five, we made 2,640 lbs. of butter selling for \$797.60, an average of over 30 cents a pound. Five of the lot have qualified in the R.O.P. test in this milking period.

They were fed after going on grass, two quarts of oat and barley chop twice a day. Taking into account the value of skim milk fed to calves and pigs. I think they did a little better than the average herd.—A. Edwards, Chatham, Ont.

Sacrificing Good Bulls

THE American Shorthorn Breeders' Association have recently issued some advice to its members that applies with equal truth to the dairy breeds as well. The word Holstein, Ayrshire or Jersey might well be substituted for Shorthorn in reading the following:

"Many inexperienced breeders make the mistake of going at it blindly from year to year in their use of herd bulls. They keep eternally changing, using one a couple of years and then superseding him with a calf. On the other hand the constructive breeders rely mainly on tested sires, mostly with quite a bit of age. Indeed, such breeders have been known to buy entire herds, which they did not want, merely to acquire the old bulls at their heads. A Shorthorn bull that has proved satisfactory as a getter should be kept in service until death or impotence ends his usefulness. When fully matured, bulls often get hard to do with, and too often for this reason alone, are bundled into the cars and shipped to the shambles. A big loss is sustained each year by such unnecessary and uncalled for sacrifices. The wise breeder goes mightily slow with the use of any untried calf, until he knows what the youngster can do.

"New bulls must be introduced into every herd, but there is never any occasion to make the change suddenly, dropping one outright and using another to all the breeding females. A very little ingenuity will enable the breeder to discover what the chosen one is going to do. It doesn't make much difference in what herd a bull succeeds. Every good getter should be allowed to live out his allotted span of life begetting calves after his kind. The wise breeder has always in use a bull on which he can rely for the transmission of true Shorthorn character."

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PROSPERITY FOR THE FARMER

WE want to thank most sincerely the many Farmers and Fruit Growers who have favored us with the buying and selling of their properties during the past year—also to extend

HEARTIEST Christmas & New Year GREETINGS

to them and every farmer in Canada.

This is indeed the era of prosperity for the farmer—crops were larger than ever—prices good—and demand for products large—"Make Hay While the Sun Shines."

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They Are the Very Apple of His Eye.

This team of young oxen were trained by their owner, Graydon Knowles, Hastings Co., Ont., a boy of twelve when this photo was taken. "Something to own" may often be the strongest connecting link between the boy and the farm.

tems, as of cooperative marketing, brought out many diverse views as to the part the state should play in the organization of rural credits. An out and out advocate of things as they are, was found in F. W. Thompson, president of the Farm Mortgage Bankers' Association. He discussed the relation of the rate of interest on mortgage indebtedness to the total cost of production. The average rate on farm mortgages he estimated at 8 1/2 per cent and the difference between this rate and the one which it is proposed that the government should charge for farm loans, is only one and one-half per cent, or on the farm of average value a difference of 6 1/2 cents an acre. This difference he considered of small significance as compared with the attention it is receiving at the hands of some who have assumed to discuss rural credits. Mr. Thompson confessed himself an absolute believer in private initiative.

This address dealt only with land mortgages. In fact discussions were confined largely to land loans, rather than personal credits, and principally with loans for the purchase of land. The problem of the tenant and the absentee landlord, is becoming a serious one in the United States and the conference set itself to the problem of finding means to finance the landless man in such a way as to make him a land owner. Just how serious the tenant problem has become was forcibly brought to the fore by Chas. W. Holmer. He said:

"In the states of Illinois, Iowa, Kansas, New York, Ohio and Pennsylvania, tenant farmers have increased by 131,167, while the number of home-owning farmers has actually decreased by 62,915. But in Texas and in her sister state, Oklahoma, we find about the saddest disillusionment of American hopes for home ownership. Forty years ago Texas had 46,468 tenant farmers, 37.6 per cent of the farms in the State. In 1910 tenant farmers had increased to 219,371, 53 per cent of all the farms in the State."

This is a serious situation. It means that the American yeomanry is becoming an American peasantry. As a means of getting these men back on to farms of their own, Dr. Elwood Mead, of the University of California, advocated an adoption of the rural credit system of Australia and New Zealand. There the state plan includes the building of houses for settlers, levelling and seeding of a part of the farms and the placing of a practical farm instructor over every area of 80,000 acres or less and the lending of money to the settler to complete the development. The settler was required to deposit only three per cent on the value of the land, 40 per cent of the cost of improvements and it is given 36 1/2 years time in which to complete payment. The state obtained money at four per cent, loaned it at four and one-half per cent and on the transaction has realized a profit of \$500,000.

Several speakers advocated federal and state action for the loaning of money to landless farmers. Prof. B. H. Hibbard, of the University of Wisconsin, drew pointed attention to the relationship between the proportion of tenants and the value of the land; the higher the land values, the greater the number of tenants. Governor Ferguson of Texas made an appeal to the federal government to study the land problem and to help the homeless to buy homes by loaning, not giving, them the necessary funds. He called attention to the fact that the \$2,000,000,000 which American capitalists are planning to loan to the allies of Europe, would make a loan of \$800 million to every tenant farmer in the United States, enough money to start them all on the road to the ownership of land. He considered that this would be a safe and secure field for investment and the sanest methods of national defence. "Build small homes and this trouble is safe," asserted the Governor Ferguson. "The self-interest of those who would own homes would save it from every invader and usurper. Did you ever hear of a man

taking his gun and defending a boarding house? No, but history is replete with the valor of the yeomen of many ages who laid their lives on the altar of a home."

Robert L. Kemp, president of the Merchants' Bank, Passaic, N.J., preferred the establishment of a system of rural credits, organized after the manner of building and loan associations. Subscribers would pay at the rate of \$1 a month per share. If 500 shares were subscribed, the end of the third month would see a fund of \$1,500 available for making temporary loans to such members as might need to borrow. After the lapse of a year, the accumulated dues, interest and payments of other loans, would amount to enough to warrant the association in embarking in the farm mortgage business. In this manner Mr. Kemp hoped to solve both the problem of personal credit for short-time loans and long-term loans on farm mortgages, both at a reasonable rate of interest.

The Udder of the Cows
J. L. English, York Co., Ont.

"N O udder, no cow," is as good a maxim for the dairyman as is "no feet, no horse," for the horseman. Udders may be deceiving, but I know that in nine cases out of ten a cow with a pendulous udder of proper size and quality will be a good producer.

Mer size is not a valuable indication of producing ability. I have seen udders as large as wash tubs on cows that were mediocre milkers. On examination these udders proved to be hard and fleshy. I look for quality in an udder. When the udder is empty, I like it to be hard, not hanging, it should give that silky feeling which always goes with good quality.

Another type of udder that gives the appearance of quality, that is really lacking, is the pendulous udder. Length and breadth of udder are more important than depth. A proper shaped udder is attached well up behind and well forward in the belly and good width is allowed by out-curving thighs. A cow with such an udder in my experience, has a much longer life of usefulness in the dairy than the cow with a pendulous udder. Not the least of the disadvantages of a pendulous udder is that it is always dirty and also liable to be injured by the rubbing about of other cows. I need not mention the importance of good teats with size and shapeliness. Everyone who has milked a cow appreciates the importance of this point.

I would caution buyers against selecting a cow when the udder hard with milk. I always request the privilege of milking out a cow before I buy her. I then know whether a cow is a hard milker and I also have an opportunity to examine the udder for quality. If the cow is dry, I would look for much loose skin of fine silky texture which would indicate good udder capacity when fresh.

But how of the man with a herd of cows with ill-shaped udders? Breed these udders out of the herd. Select a bull with good rudimentaries and whose dam and sire's dam had shapely udder. One generation will do it as I know from experience.



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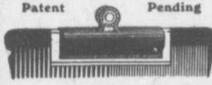
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PUBLISHERS' DESK

A Chat with Our Folks

By H. Bronson Cowan, Managing Director of The Rural Publishing Co., Ltd.

IT is some time since we have had a chat with Our Folks concerning matters relating to the book which keeps us in touch with one another—Farm and Dairy. It is needless to say that these are war times. We all realize it. Yet we do not realize it nearly as much as we might had the financial pinch pressed us as closely as it was at first feared that it would. It is surprising that we are feeling it as little as we do. Everything considered, business conditions in Canada are probably better and stronger than they have been for years and possibly than ever before. Our banks, for instance, have larger deposits and greater resources than ever before in their history. Take this issue of Farm and Dairy, a smaller but typical example. It carries a larger volume of advertising than any issue we have ever hitherto published at any season of the year. Previous to this issue the record-making number, from an advertising standpoint, was the breeders' issue published in December, 1913, which was the December before the war started. Thus after a year and a half of our conditions Farm and Dairy, which draws its advertising from hundreds of advertisers throughout the country, representing large and small businesses, publishes in this number an issue containing a larger volume of advertising than ever before in its history. Is that not a testimony not only of the standing of Farm and Dairy, but of the soundness of financial conditions throughout the Dominion?

ANOTHER record of progress is furnished by the fact that this issue of Farm and Dairy is being mailed to more paid subscribers than any other Breeder Number. The paid circulation of Farm and Dairy now is over 20,500, and the total number of copies of this issue printed is 22,600. At a time such as this when war news is attracting so much attention, it is encouraging to know that Our Folks are continuing to welcome and read this weekly visitor to their homes, Farm and Dairy.

THERE are thousands of boys on the farms where Farm and Dairy is read each week who would like to attend an Agricultural College, but who have neither the time nor the means which would enable them to do so. All such boys should write us immediately for information about the Farm Correspondence Course which we are now launching. This Course will be in charge of Mr. R. D. Colquette, B.S.A., one of our Associate Editors. It may interest our readers to know that the President of one of our largest Provincial Agricultural Colleges approached Mr. Colquette some time ago to see if he would join his staff and conduct such a Correspondence Course from the College. Mr. Colquette has stayed by Farm and Dairy. The Course he has arranged should be of untold value to the farmers' sons who take advantage of it. Through the co-operation of the Provincial and Dominion Departments of Agriculture, we have been furnished with what will be the equivalent of text books free of cost for all the boys who take this Course. It is a remarkable opportunity for farmers' boys to improve themselves during the winter

hours, many of which might otherwise be wasted. We hope our readers will watch the development of this Course as announced from time to time in Farm and Dairy. In the meantime, we are hoping you will urge any boys whom you think will be interested to write us for further particulars.

ANOTHER feature of exceptional interest will appear in our columns shortly after the first of the year. Through special arrangements made with The Grain Growers' Guide, Winnipeg, we will publish a series of articles giving the plans for ten different farm homes. With each of these plans we will be able to furnish drawings for those who would like to erect homes from the plans we publish. Estimates of the cost of building the different homes will be provided and an estimate given of the expense involved in each case. In addition we will publish a companion series of articles describing the best homes many have decorated in the best advantage. Our readers often ask for articles of this character. Hundreds of dollars have been expended in the preparation of these plans and articles. They will be one of the best features that have ever appeared in Farm and Dairy.

HAS it occurred to you lately to see if you have a subscription to Farm and Dairy? It may be paid in advance or if it is in arrears. Last summer we commenced an experiment in the matter of writing Our Folks in connection with the expiration of their subscriptions. In the case it was our custom to send notices to our readers once a month when their subscriptions were in arrears. Some of Our Folks thought that we were bothering them too much, and told us so. The result was that last summer we decided to send out reminders only once in three months. The result has been most noticeable. To-day there are possibly 3,000 more of our readers in arrears than is usually the case at this season. Of only a dollar to any one of Our Folks is a comparatively small matter, but \$3,000 becomes a fairly large matter to us. We are not complaining, as we expected this would be the result. We are merely telling you about it to show you that we do not desire to bother Our Folks unnecessarily, but at the same time express the hope that if you find our subscription is in arrears you will see to it that your renewal is sent soon—before we close our books for the year. Notice the special offer we make elsewhere in this issue.

THIS is a lot to tell you about ourselves. The fact is we feel that Farm and Dairy is a cooperative enterprise in which every reader has a share. This leads us to tell you of those things in which we feel you will be interested. In the same way we hope that you will write us fully concerning anything that you would like to see us discuss in the columns of Farm and Dairy or make any suggestions which you care to. Let us hear from you. Be sure your letter will be welcome.

Remarkable Streets

THE highest street in the world is in San Francisco. The lowest is in London. The richest is Fifth Avenue in New York City; the widest is Market Street, in Philadelphia; and the shortest is Rue Bleue, in Paris. The dirtiest is the Tolez Street in London; the cleanest is the Via Castell, in Seville, Spain; the most aristocratic one is Grosvenor Place, in London; the most beautiful is the Avenue des Champs Elysees, in Paris.



Ladylike by side Dian... They were

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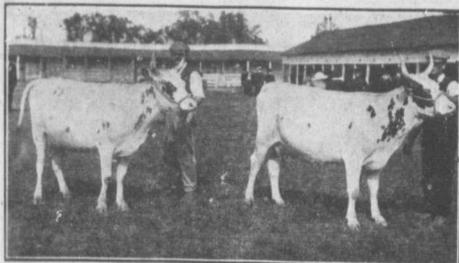
Wm. N. Victoria

to a nice... for calf... received th... number o... calves as... buttermil... The calv... and it w... odd calve... then was... healthy, b... buttermil... in the... where he... probably... clean rec... it could... tage and... would be... Genera... avoided... calves. F... buttermil... of skim... too much... process. Where t... the creat... pasture... The milk... before fe... would no

General... avoided... calves. F... buttermil... of skim... too much... process. Where t... the creat... pasture... The milk... before fe... would no



Anot... of Georg... Ex... should B



The Kind That Make Many Lovers For the Ayrshires.

Lakevide Buttery in front, Lakevide Diana behind. At Quebec, Lakevide Buttery was first and Diana third. At Sherbrooke the positions were reversed, Lakevide Diana was placed first and Junior Champion female, Lakevide Buttery third. They were 3th in the splendid herd of George H. Montgomery, Lakevide Farm, Phillipsburg, Que.

Buttermilk for Calves

WE are now in winter dairying and are planning to make butter at home this winter. We have both buttermilk and skim milk. The calves have been getting the skim milk all along, but now it has been suggested to us that they would do even better on the buttermilk. What is the value of buttermilk for feed for dairy calves?—J. M. LAMARK Co., Ont.

Wm. Newman, a creamery man of Victoria Co., Ont., has demonstrated to a nicety the value of buttermilk for calf feeding. Mr. Newman conceived the idea of feeding a large number of well bred dairy heifer calves as a sideline to his creamery, buttermilk being their main feed. The calves thrived on this feeding and it was noticeable that in the 80 odd calves that he fed, not one of them was seriously affected with scours. This he explained by the healthy, bacterial content of the buttermilk which aided in digestion. In the case of our correspondent where he is running a home dairy, probably with healthy cows and clean receptacles for the buttermilk, it could be fed to excellent advantage and under these conditions would be an ideal feed.

Generally, there are dangers to be avoided in feeding buttermilk to calves. For calves the food value of buttermilk is a little lower than that of skim milk and it is easy to add too much water in the buttermilk making process. The food is then too bulky. Where buttermilk is secured from the creamery it should always be pasteurized before feeding to calves. The milk has to be heated anyway before feeding to the calves and it would not be much more trouble to

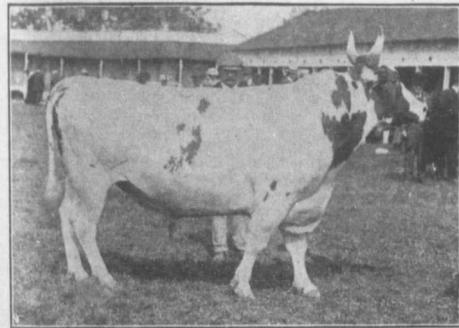
bring the temperature up to 170 or 180 degrees and hold it there for a few minutes. One may start to feed buttermilk when the calf is two weeks old and then gradually wean off to buttermilk only, as is done in the case of skim milk feeding.

Beekeepers Meet

THE annual meeting of the Ontario Beekeepers' Association was held in Toronto Nov. 23-25, with 900 beekeepers in attendance. The membership of this association is now 1,130. The treasurer's report showed a balance on hand of \$233.92. Officers were elected for the following year as follows: Pres., F. W. Krouse, Guelph; 1st Vice-Pres., James Armstrong, Selkirk; 2nd Vice-Pres., W. W. Webster, Little Britain; Secretary-Treasurer, Morley Pettit, Guelph.

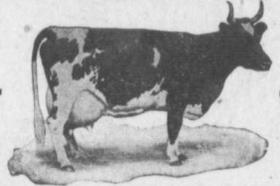
Three important resolutions were passed as follows:

- (1) To have the Executive Committee with D'Arcy Scott, Ottawa, and Mr. J. D. Evans, Islington, petition the Dominion Government to take measures to prevent the importation of bees from diseased districts.
- (2) That Messrs. J. D. Evans, N. M. McIntyre and R. B. Ross be a committee to request the Ontario Government to increase the fine in the present act against spraying fruit trees in full bloom, to be not less than \$25, and not more than \$100.
- (3) That the Provincial Apiarist be requested to conduct experiments to prove the effect upon bees of exposing sweetened poisons for destroying grasshoppers army worms, etc.



A Worthy Representative of the Breeding Behind Him.

Autobahn Sea Foam (Imp.) 35758 (8865) is the senior herd sire of the Lakevide Farm of George H. Montgomery, Phillipsburg, Que. At both the Quebec and Sherbrooke Exhibitions this year, he carried off the Grand Championship. His offspring should be show winners, some of which Lakevide Farm is offering at the present time.



50
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Pure Bred

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Pure Bred

SECOND ANNUAL CONSIGNMENT SALE OF AYRSHIRE CATTLE

From the Herds of the SOUTHERN COUNTIES AYRSHIRE BREEDERS' CLUB To be held at the IMPERIAL HOTEL SALE STABLES, TILSONBURG, ONT.

DECEMBER 30th, 1915, at 1 P.M.

The offering consists of Females of all ages, including a number of Fresh Milk Cows that have either qualified or are running now in the Record of Performance Test. A number of extra choice Young Bulls, fit for service, are included in the sale. The breeding of the cattle in this consignment is of the very choicest. Note the breeding also of the reference sire in the catalogue. Note also that the constitution of our Club absolutely prohibits all by-bidding or bidding in.

REMEMBER, that the average test of nearly 800 head of Ayrshires now in the R.O.P. is over 4 per cent. of butter fat.

TERMS: Cash, or credit up to 6 months in bankable paper, interest at 6%.

MOORE & DEAN, Auctioneers
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is just a SPRAMOTOR unless we made it by reason of its improved construction, does the work of spraying as no other machine can.

Made in Canada—No Duty to Pay.

The Spramotor won first prize in the Canadian Government Spraying contest at Grimsby, Ont., against eleven other makes. By actual Government tests in 25 orchards it reduced the percentage of loss in fruit over 30 per cent. Used on potatoes a Spramotor has increased a yield of almost nothing to 7 1/2 bushels an acre. Think how quickly such a saving or even a small fraction of such a saving would pay for your Spramotor. The Spramotor is operated by hand, horse or gasoline engine; it can be had for as low as \$6 up to \$400. Send for and read our valuable and interesting book on crop diseases—mailed free.

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

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The Rural Publishing Company, Limited
PETERBORO, ONT.

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

Farm Profits and Oleomargarine

"THE Baker and Confectioner," official organ for the interests named, is after the farmers of the land on two counts; first our contemporary seems to be jealous of the profits which it believes farmers are making out of war prices and bumper crops; secondly, it objects to the "coddling" the farming interests receive at the hands of the government. The particular form of "coddling" to which "The Baker and Confectioner" is now objecting is the total prohibition of the manufacture and sale of oleomargarine in Canada; as it puts it—"To please the farmer people must pay higher prices for butter or go without—squeezing the poor to help the dairy-man."

On the first count "The Baker and Confectioner" is needlessly worried. Even with conditions as they are this year, the returns of the average farmer, over and above operating expenses, is hardly sufficient to pay the proprietor the wages of a first-class hired man and five per cent on his investment. Taking one year with another we doubt if the investment in the average farm pays three per cent. Does our contemporary consider such profits abnormal? So far as government "coddling" is concerned we are safe in saying that farming has received less real assistance than any other industry of importance in the land. With a few minor exceptions, we farmers have faced the competition of the world in the marketing of our produce while other industries have had the benefit of a protected market, and in not a few cases, direct government subsidies.

It is true that the dairy industry is protected against competition with margarine on Canadian markets. We do not believe, however, that the dairy farmers of Canada would object to a change in regulations that would allow of mar-

garine being sold in Canada—providing it was sold as margarine and not colored and sold falsely as butter. In the United States, where margarine is sold freely under government regulation, the combined wisdom of federal and state legislatures has so far proven inadequate to formulate laws which will make oleo manufacturers honest. The whole history of the trade in that country has been one of deception and robbery with consumers as well as dairy farmers the victims. Dairy men of Canada may well be excused if they object to the inauguration of a similar condition of affairs in Canada. Along with its demand for the sale of oleomargarine in Canada we would suggest that "The Baker and Confectioner" include some workable suggestions as to how the trade is to be kept in bounds. If it can do this the legislators from one end of the American continent to the other will be forced to take off their hats to "The Baker and Confectioner."

Future Stock Markets

EARLY this fall a man well to work with the live stock industry of Canada remarked to us: "Now is the golden age for the breeder of pure-bred live stock. Prices are high and demand good. Twenty years from now all farmers will have pure-bred cattle and the profits that are now possible from the business will have disappeared."

We have been wondering if this stock man has diagnosed the situation correctly. At the present time a rough estimate would put the proportion of pure-bred dairy cattle in Canada at one to sixty of the entire cow population. The number of pure-bred herds is rapidly increasing, and if our animal population were to remain stationary, the annual increase of these herds, allowing for a fairly rigid culling for quality, would make possible the displacement of all grade animals in much less than twenty years. We can safely count, however, on the animal population of the country increasing greatly in the next few years just as it has already done in the United States. The demand for good breeding stock will extend in proportion. Unquestionably, however, the actual proportion of pure-bred animals will increase, and with this increase the extremely high prices now occasionally paid will disappear and it will become practically impossible to dispose of animals lacking in individuality merely because they have a pedigree. The breeder of the future will have to put more emphasis on individual quality and he may rest assured that there will always be a good market for good pure-bred animals. For the next few years at least, we anticipate that the demand for pure-bred cattle will increase rather than decrease.

A Revolution in Sight

It will not be a military revolution to which we refer, but an agricultural one, brought about by one of the world's leading exponents of peace—Mr. Henry Ford, millionaire automobile manufacturer. If Dr. John A. McDonald reports Henry Ford right, he is going to manufacture in Canada a farm tractor, light and simple in construction, which will do the work of six horses. The changes that such a tractor would bring in our agricultural practice are almost inconceivable. Such a tractor would increase the efficiency of every working man in the country. It would reduce the operating expense of an average 100-acre farm \$200 to \$300 a year. It might even be conducive to further rural depopulation.

The tractor demonstration at Guelph last month has convinced us that tractors will do farm work and that there will be a large place in Ontario and other Eastern provinces for the tractor that is cheap, light and efficient. Mr. Ford promises that his tractor will be all three.

We are all prepared to give such a tractor a right royal welcome to our farms, and are trust that the completion of the tractor factory will not be forgotten in the greater work of ending the war in Europe, recently undertaken by Mr. Ford.

What is Good Production?

THE dairy farmer who has a herd of a dozen or more cows, pure-bred or grade, averaging three hundred pounds of butter-fat a year, has good cause to be proud of his achievements as a breeder. We know that these words of ours will be a real encouragement to many of Our Folks; we hear so much of one thousand-pound cows nowadays that the man who formerly gloried in the three hundred-pound average, begins to think that he hasn't done much after all. But he has. There are very few one thousand-pound cows in the world, and none that we know of that have repeated their performance one year after another. We never heard of a herd with more than one one thousand-pound cow in the number, and let us whisper to the down-hearted man with the three hundred-pound average, that many herds with one or two champion producing cows do not average as well as his do.

The dairyman with his three hundred-pound cows need not stop striving for a higher standard, but he can at least afford to congratulate himself. If he has a herd that produces and reproduces cows of the three hundred pounds of butter-fat a year stamp, that repeat the performance year after year, his work will count for much in the permanent advancement of the dairy interests. Such averages as his are accompanied by mortgages lifted, new barns, new fences, modern homes—and most likely an automobile.

Type and Performance

RAUWERD Count De Kol Lady Pauline holds a record that has few equals in the world and none in Canada—in twelve months she has produced over 29,000 lbs. of milk which is very nearly a world's record. Her daughter, Countess De Kol, was in her time the champion junior three-year-old producer of the world. As a producer and reproducer, Rauwerd is, therefore, about all that anyone can desire. The final chapter of her story was told when her owner, Mr. G. A. Brethen, took her to Toronto this fall and won second place in a strong milk class. She was then taken to Ottawa and, although then milking over eleven months, she was awarded first place in her class.

We have given Rauwerd's history for this one reason,—to prove the relationship between desirable dairy type and producing ability, and that both can be had in high degree in the same animal. A few years ago animals were bought and sold on their show yard achievements. Then official type came in vogue, and public opinion swung to the other extreme. Some faddists went so far as to say that production only was worthy of consideration and as a result, animals deficient in constitution and conformation sold at record prices because they happened to be bred from record stock. Now we are becoming sner in our selections. Conformation will never again be the sole criterion of value as in the long ago, nor production only as in the more immediate past, but the high-class demand will be for cattle of good conformation and proven producing ability. To combine both of these qualities in a herd is the highest proof of real breeding ability and the only kind of breeding that can result in the highest good to a dairy breed.

Starvation economy does not pay in the long run with good dairy cows. This line of reasoning, of course does not apply to scrubs; they do not pay anyway.

December 9, 1915

T. J. SHEPHERD
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Notes for the Shepherd

With the Flock

T. Baker, Durham Co., Ont.

SHEEP, if infested with ticks or lice should be dipped before being housed for the winter. This should be done on a mild day.

Ewes in lamb should have a dry, cool building and a roomy yard in which to exercise, away from all other stock. All litter should be kept level or probably the best ewe in the flock will be found on her back dead some morning.

All doors where ewes pass through should be wide enough for two ewes to go through without crowding.

Sals should be placed in the yard as far from the pen as possible as exercise is necessary to ensure best conditions. If there are any old ewes with broken mouths they should be kept by themselves and fed more liberally than young vigorous ewes. Ewes in lamb have not only their own vitality to maintain, but also have to grow wool and nourish one or more developing lambs. Common sense should teach any man that for good results, ewes should be well thought economically fed.

For every ten ewes my practice is to feed a bushel of pulped roots, turnips preferred, in two feeds night and morning and at noon three-quarters to a pound of oats with pea straw or clover-chaff for roughage. Timothy hay is useless as a sheep feed. Ensilage may be good but I never feed ensilage to sheep.

As lambing time approaches, some bran may be added to the daily ration. Ewes should be in good, vigorous condition but not too fat at lambing time and should have plenty of milk for their young. If such conditions exist, ewes will not be so apt to disown their lambs. After lambing they should have good clover or alfalfa hay and bran, oats, a few spilt peas or oil cake if not on grass.

Watch the udder of a ewe that is a good milker with only one lamb as sometimes the single lamb will not take all the milk and trouble follows. Snow may take the place of water, but I water them every day and keep dogs and strangers away from the sheep.



Old Sows or Gilts

EXPERIMENTS recently completed at the Nebraska Experimental Station seem to throw doubt on the accuracy of the generally accepted dictum that old sows are more profitable for breeding purposes than gilts. The experiments may be summarized as follows:

The experiment with old sows covered an average of 18 years and four winters. The increase of the sow's weight from the fall till the pigs were weaned in the spring was credited to the sow. It fed eaten during the winter and by both the sow and the pigs till the latter averaged 50 pounds each was charged against the sow. The old sows farrowed an av-

erage litter of 11 pigs at an average weight of 2 1/2 lbs. When the average weight of the pigs was 50 pounds each the average number of pigs per litter was only 6.55. The average cost of feed used in producing the 50 pound pig was \$2.11 in the case of old sows.

The record of an average of 24 young sows was kept for five years and the cost of pigs at 50 pounds calculated on the same basis. These sows farrowed 8.2 pigs, weighing 2.31 pounds at birth. At 50 pound weight the number had decreased to 6.2 and the average feed cost per pig. was \$1.68.

These figures leave a considerable margin in favor of the young sow. They conflict with the general opinion of many practical hog men. Perhaps the greater mortality in the larger litters of the older sows is a factor that would need to be fully explained to make the statement altogether convincing.

Charcoal for Hogs

A. McDowell, New Westminster Dist., B.C.

I have just finished reading of a most interesting experiment conducted some years ago at the Wisconsin Experimental Station. It threw some light on why I myself and many others have occasionally failed as hog feeders. The feeds that we give here in British Columbia are generally well balanced, but back in the corn belt states where I came from corn was the universal feed.

In the experiments to which I refer the pigs were divided into three lots. All we fed on corn exclusively except that one lot was given hardwood ashes and another bone meal. The bone meal was given a spoonful with each bushel of corn. The pigs were confined in pens with small yards at the rear for exercise. The ground in these yards was covered with boards to prevent the animals from rooting in the earth and eating quantities of it, as those not getting ashes or bone meal would have done had opportunity offered.

Now for results: The pigs not allowed either ashes or bone meal were dwarfed. They became so fat that the jaws and bellies of some of them nearly touched the ground. It was evident that the feed elements for developing normal bone and muscle were not there.

Pigs getting ashes or bone meal grew very well for sometime but towards the close of their term made only fair gains, showing that the nutrients supplied were still too limited in character to allow normal development. The corn meal required to produce 100 lbs. of grain when bone meal was fed was 487 lbs. when ashes were fed 491 lbs. and with neither 499 lbs.

I have always been a crank on the subject of charcoal for hogs. I believe that charcoal of some kind should be in front of them all the time. In reading over the experiment I have outlined I found justification to my belief. It is necessary for the building up of a proper frame work.

Where middlings or bran are used in addition to the corn the charcoal ashes or bone meal will not be so necessary, but still I found that even on these feeds the hogs grew better if they have access to charcoal.

It is easy to forget to salt the cows. It is not so easy for them to overlook our neglect.

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Your wife, or boy or hired man can run the Alpha without the least trouble, doing with practically no effort many jobs that would otherwise require a lot of time and hard work. No farm equipment is complete nowadays without a good gas engine. You ought to have an Alpha on your farm right now.

Ask for the Alpha Engine Catalogue and read it. It will give you a lot of valuable engine information and help you select the engine best suited to your needs.

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IT is good to be children sometimes, and never better than at Christmas when its mighty Founder was a child himself.—Dickens.

That Letter to Santa Claus

DAVE, how do you spell 'bicycle'?" David Lord glanced up from the heavy gray sock he was darning, and smiled across the table at his small brother, Joe, who was laboring away with a blunt pencil at some document evidently connected with his school work, since his language lesson book lay open before him.

"B-i-y-c-c-l-e," he spelt.

"Thank you, Dave." The small scribe bent again to his task, with heavy breathing and great earnestness of manner.

"What are you writing?" asked the older brother presently, when Joe reached the bottom of the page, and paused to tear off the sheet.

"It's a letter to Santa," explained Joe. "You see, we've havin' to write letters now in composition class, and since day after to-morrow is Christmas, teacher said we might write one to Santa, telling him what we'd like him to bring us. You'd think it was easy, but I'm pretty well stuck, and have only got one page done. She wants at least two."

"I see," responded Dave. "And a bicycle is one of the things."

"Of course. I don't expect to get it, you know that," cried Joe in alarm. "But she said write what we wanted."

"Of course. Well, Joe, maybe some day we can afford you a bicycle."

Joe returned to his literary labors, and Dave finished his mending, and put away darning ball, yarn and thimble in his workbox. Dave was father, mother and brother in one to Joe, and his housework had to be done after the day's farming was over. It was very hard for Dave, but the big, handsome fellow never complained. He was very fond of Joe, and if the little lad was an obstacle between him and the realization of some of his wishes, Dave never let anybody know it.

"The superintendent was in again today," volunteered Joe, at length, folding his paper. "An' he went off lookin' awful mad. Teacher don't like to have him come so often, I think. Her checks were just as red as roses when he went, and her eyes looked mad."

"Did—was he alone with teacher at all?" asked Dave.

"Yes, all recess," responded Joe, "an' I guess it was then that she sass-ed him. He went as soon's we were tried in, anyway."

Dave smiled and reached for Joe's pen and paper.

"I think," he said, "that I'll try my hand at a letter to Santa."

"Goody! Will you let me read it?" cried Joe. "I'll let you read mine!"

"No, bub, you see it's a very private letter. I don't want you even to tell any of the other scholars that I wrote it. Just hand it to teacher with yours to-morrow and say noth-

ing," said Dave, dipping his pen in the ink.

"But—Dave—you know—you said there wasn't really—" objected Joe.

"I said there wasn't any Santa, did I? Well, now I'm going to see if I can prove it. If I get the present I'm going to ask for, I'll believe there's a dozen Santas, if you like."

The puzzled Joe opened his arithmetic and fell do muttering, "2x1 are 2, 2x2 are 4" and so on, while Dave wrote steadily on. At last he wiped his pen, folded the letter, and putting it into an envelope, sealed it, and addressed it to "Mr. Santa Claus, North Pole."

"Here 'tis," he said. "Now, don't forget it, Joe, will you?"

The next day after eating her cold lunch in the empty schoolroom, Rosa Smith with a sigh drew toward her the little heap of composition papers and began to correct them.

"Why, what in the world—" she exclaimed as she took up the envel-

ope addressed in a bold masculine hand. She tore open the envelope, and this is what she read:

"Dear Santa Claus:

"Although I am not a little boy, I'm going to write you a letter and tell you what I want most of anything in the world. I don't know as even you can give it, but anyway, I want to ask you for it, and then I shall know, for certain, that I can't have it."

"It's this, Santa. I want a wife, awfully. I need one the worst any poor fellow ever did, but I want her worse than I need her. And there's only just one girl that I want—and she is the school-teacher in our district. I've been afraid the superintendent would get to her, but perhaps you can satisfy him some other way, and give her to me instead, for I don't believe he can possibly want her as I do.

"You see, Santa, I love her dearly, and if I can't have her, I'm sure I shall never have any wife at all. Now please do be generous to

Yours anxiously,

David Lord.

Rose Smith's cheeks were as pink as her namesake flower, when she finished this remarkable missive. She had known that Dave admired her, and had tried in his shy way, to pay her attention, but the showier, more self-confident superintendent had outshone him, and had taken up more of her time than she had intended.

She liked Dave, and knew he was a fine fellow, but as for this absurd letter—of course, there could be only one answer for it.

"Did you hear about the accident at the village to-night?" asked her host, Mr. Tripp, at the supper table.

"Dave Lord was in the blacksmith shop, helping the smith, so he'd get his own horse tended to the sooner, an' a horse kicked him, and stove his head right in! They say he've the night out!"

Rose tripped feebly to rise, but her limbs would not obey her will, and

the room went round and round and then went out with a blink into darkness.

"For pity's sake!" cried Mrs. Tripp. "What made her go off in a faint like that?"

"You told her 'bout Dave too sudden, an' too horrid, Pa," reproved eighteen-year-old Alice. "It must have kind of made her sick."

"I'm 'n all right now," gasped Rose a few moments later, as she came out of her swoon, under the ministrations of Mrs. Tripp and Alice.

"I don't feel well to-night, and I guess I'll go to my room."

"All right, Ted shall go right up and build your fire," responded Mrs. Tripp. "You lay down on the lounge till it gets warm a little."

At this moment, Will, the eldest son, came in.

"Did you hear any more about Dave Lord?" asked his mother.

"Dave Lord? Why, is anything the matter with him?" asked the young man.

"Why haven't you heard about the horse—began Alice."

"That was Dave Lord," replied Will. "Dave Lord's all right, or was when I came by, half an hour ago."

As quick as the room was pronounced was enough, Rose crept off upstairs, but she did not go to bed. Instead, with red cheeks and starry eyes, she wrote a letter, and addressed it to Mr. Dave Lord.

The next evening at the Christmas tree at the church, the resplendent Santa Claus majestically called out to the daughter of the house, little David Lord, and gave distribute the girl who was helping distribute the envelope. But Dave's tanned cheeks turned red as he saw the writing, and he tore open the missive with feverish haste.

"My dear Dave," it read,

"I do not make a practice of giving wishes for Christmas presents, but since you want one so badly, and I asked me so politely for her, I will make an exception in your case. You will find her with the Tripps, and you had better offer to take her home after the entertainment is over. I happen to know that nothing could please the girl in question better than to be given to you.

Yours truly,

Santa Claus."

Dave cast a rapturous glance across the church, where Rosa sat, with Mrs. Tripp, and caught her bright eyes looking in his direction. He smiled significantly at her, and her pink cheeks grew pinker.

"Who says there isn't any Santa Claus?" said Dave to himself—New England Homestead.

The Christmas Spoilers

Dr. Frank Crane

THESE are some of the spoilers of Christmas, that many a girl have termed the day of gladness into a day of gloom.

First of all is Self Pity. Five minutes of indulgence in the luxury of feeling sorry for yourself is enough to cloud the whole 24 hours. Then, come our Rights; on this day wipe out all your Rights, your dues and claims; just live and think for other people and be content to be neglected; otherwise you cannot understand the Christmas kind of happiness. The Grouch is a vicious Christmas Spoiler; a sulky, sour-faced person (no matter what the provocation) who moves among the happy hearts of the family on this day, as a poison snake among the strawberries.

Extravagance spoils any day and none more than Christmas; for it is not love, but mean pride and self-display that lurks under gifts beyond one's means. The simpler Christmas thing at it is. The more genuine it is. Finally, to get the most out of this festival, we ought to celebrate it as



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The Upward Look

Travel Thoughts—No. 12
"The World's Hidden Beauty"

"THERE is nothing covered that shall not be revealed, and hid that shall not be known," — Matt. 13: 35.

One of the most memorable hours of the whole summer trip was one spent in a bay, by the rocky Coronado Islands of Mexico. In the distance, these islands looked bare and bleak, with no trees nor grass, but on landing and clambering over them we found a profusion of rarely beautiful flowers. Seals were barking and clambering over the rocks, while sea-birds were screaming and wheeling in the air.

The boat had a glass bottom, through which we could look down to the bottom of the Pacific Ocean fifty feet down. It was, as it were, a beautiful miniature of the world above, mountains, valleys, deserts and forests. There was every variety of water growth, from tiny seaweed to stately trees; every variety of water-life, from small blue fish to formidable sharks; every variety of shells, from daintily exquisite ones to the dangerous abominable.

To think that all that exquisite beauty had been there for ages, with no human being to enjoy them! I think of all the grandeur in the world that no human eye ever enjoys. Yet the wonder and the grandeur and the beauty is there all the same and all the time.

When the Creator has thus made so perfect all the hidden, the unknown, the undiscovered, the thought came, that all the hidden and the unknown in works, thoughts and life, would henceforth have a grand, new significance. What if others did not understand our struggles, nor appreciate our sacrifices, nor realize our exertions, yet we ourselves know what efforts we are making. These must tell on our own characters, so that when the hour of trial or temptation comes we will be ready.

All must be beautiful and perfect within, so that with reverer a qualm, would we fear inspection by either the human or the Divine eye.—I.H.N.

On Preventing Colds
 With the Household Editor.

"YES, I have quite a severe cold, but then that is nothing new for me. I usually have one every year about this time, so of course I don't mind it very much." Her looks and actions, however, did not exactly verify her words as she sat huddled over the kitchen stove, the cold being very warm and stuffy.

The beliefs of this woman in regard to colds are representative of the opinions of many really intelligent people—that they are natural and that they are not dangerous. Some people really seem to look forward to having a cold every winter, almost with as much surety as that winter itself is coming. These same people appear to be equally assured that colds are not dangerous, which is to say the least a very mistaken idea. The most common diseases that may develop from a cold are pneumonia, tonsillitis, catarrh, inflammation of the cavities of the chest and inflammation around the heart.

How often we hear a remark something after this: "I don't know how I could have caught this cold as I haven't had my feet wet,

been in a draft or been out in bad weather." Anticipation tells us that there is no such term as "catching cold!" but that we always "contract" a cold from some other person. There are different ways in which we may contract a cold, by using the same towel, by drinking out of the same glass, or probably the more common way is by getting the cold germs from another person, who sneezes or coughs. Of course this does not mean that we contract a cold every time we come in contact with a person who has one. If the system is in a healthy condition, and all the organs working properly, one can resist these cold germs; otherwise, we may waken next morning with what we sometimes call "a swelled head."

The old fashioned idea of keeping the person with a cold shut up in the house, burdened with flannel and woolen garments and not allowed to go out where they may get a breath of fresh air, should be most vigorously removed from our minds. Instead of a person who is suffering from a cold breathing germs laden air over and over again in a room, they should endeavor to spend considerable time outside where the air is pure and invigorating. If we are not just pure air and a cold, damp day is not conducive to curing a cold. It is when the air is clear and dry, even though it may be falling, that the weather is ideal.

We would like to suggest to the over-anxious mother, that she be not guilty of exposing her children to contracting cold easily by bundling them up when playing, especially muffling the throat closely. If the feet, chest, wrists and ears are warm, the throat does not need to be snugly covered, especially in such cases as we see so many children wearing. If they start wearing this protection early in the winter, they must keep it up whenever they go out as naturally as they would wear a sweater and susceptible to contracting a cold. It is much better to allow the throat to become hardened to the weather. By this we do not mean to go to the other extreme and over-do the hardening process.

While dry air out-of-doors is necessary, dry, hot air indoors is not a good thing. In the furnace heated house the air is apt to be dry and it is necessary to see that the furnace water tank is well supplied with water at all times. Keeping a dish of water in the living rooms is also recommended highly for keeping the air humid.

Is it necessary to emphasize the necessity of sleeping in a room where the windows are raised both winter and summer? It is gradually coming to realize the benefit of this practice, especially in the city, but there are still many country homes where the windows are kept tightly closed all winter and even then the room is quite cold. Here again we must not forget that cold air is not pure air.

In endeavoring to get the best remedy, if we do contract a cold however, why not try to follow some of the suggestions given in this article.

We mention this because of a very clever doctor who said: "The cure of a cold can be summed up in one word 'eliminate.' Eliminate by the skin, by the lungs, by the kidneys and by the intestines." He goes on to point out that a laxative should be taken to produce elimination by the intestines; that the drinking of plenty of water will help to purify the kidneys; that the old-fashioned remedies of a mustard foot bath and hot lemonade will induce perspiration and so help the skin to throw off the poisons and the air of fresh air will enable the lungs to do their work.

LAST CHANCE FOR Xmas Bargains

There is still time before Christmas to secure one of these beautiful instruments, if you act right down and write us at once. Pick out the one you want or mail coupon for bigger list. Every instrument has been put in splendid condition and guaranteed. Write us now, so you can have the easy terms and act at once. It will make the whole family happy for years to come. The time is limited so don't waste any of it. Write us to-day—Now. If you would prefer it, we will mail you list of Piano bargains.

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- BELL, five octave organ, oil finished walnut case, high top with music pocket, sliding fallboard, lamp stands, 10 stops including Vox Humana, Bass and Treble Couplers, Forte, Celeste, etc., Grand Organ and Knee Swell. A well known make with elegant tone and in splendid order. Price... **\$32**
- DOMINION, five octave organ, handsome walnut case, extension gable, nicely paneled in Bur! walnut, cylinder fallboard, lamp stands, has 6 sets of reeds and 11 stops, including Vox Humana, Couplers, Forte, Soft, etc., Grand Organ and Knee Swell. Has a very rich tone and would also be very suitable for use in a small church. Price... **\$44**
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- CONLEY CHURCH, six octave organ, walnut case, piano case model. Sliding fallboard, full length music desk with nicely carved panels, has 11 stops, including Melodia, Bass and Treble Couplers, Viola, Grand Organ and Knee Swell. Has been carefully renewed in every part, and is just as good as new. The tone is very rich. A bargain at... **\$68**
- VERMONT, six octave piano case organ, sliding fallboard, automatic full length music desk, handsome carved panels, has 11 stops including Bass and Treble Couplers, Viola, Celeste, Diapason, etc., grand organ and knee swell. This is practically a new instrument and in perfect order. Price... **\$72**
- THOMAS, mahogany, six octave piano case organ, rail top with mirror, extra long music desk, lamp stands, has 15 stops including Vox Humana, Couplers, Forte, Vox Humana, Viola, etc., Grand Organ and Knee Swell. This instrument has never been out of our warehouse but has become slightly shabby worn, but guarantee like new. This is a special bargain at... **\$99**

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- GODERICH, five octave organ, satin finished mahogany case, chapel design, sliding fallboard, lamp stands, has 7 sets of reeds and 34 stops, including Vox Humana, Couplers, Forte, Viola, Diapason, Soft Bass, etc. This instrument has had very little use, the tone is very rich and would be just as good an organ for use in a small church. A snap at... **\$78**
 - FARRAND, five octave organ in oak case, chapel design. (THE REED ORGAN WITH A PIPE TONE). Has 6 sets of reeds and 11 stops. The Farrand organ is fitted with a patent device which greatly enlarges the tone and makes it sound like a small pipe organ. Full deep green organ effects can be made in soft effects and the instrument being finished both back and front, can stand in any position in a church. We have special case showing this instrument, and also giving full specifications. This information will be mailed upon application. The price of this organ is quoted special... **\$250**
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AMUSEMENTS

Conducted by MARION DALLAS

Ways of Distributing our Gifts

MERRY Christmas! What power that old refrain has to stir our innermost beings. What a thrill we feel as we hear the "newy" once more lustily calling, "Christmas Extra." We cannot analyze that subtle-feeling that comes with perennial

freshness year after year. It is not, thank God, the monopoly of the rich or poor. It penetrates every heart. The keen eye of the little waif on the streets brightens as he feels that in some mysterious way Christmas is in the air and though he knows of no one to give him any Christmas cheer, he lives in hope. Soon this great old world will be throbbing with love and kindness. Have we asked ourselves what is this Christmas to mean to us? Will it mean a hurried rush through the crowded stores to buy presents just for duty, or are we going to have the good old-

fashioned Christmas spirit and cheer rule our hearts?

Community Christmas Tree

Why not have a big Christmas Tree in your town square? Have it lighted from top to bottom with blazing lights and combine all your church choirs and societies and school boys and girls into one grand chorus to lead in the singing of the carols. No village is too small to erect such a tree and gather its young and old together for a common celebration of the great festival. The Community Tree, the sharing of home joys with the whole neighbor-

hood is one of the symbols of the awakening of the true community spirit.

Way of Distributing Gifts

The Christmas stocking and the tree, still have the honored place in the hearts of the wee folks. There are those, however, who will be planning outside the family circle, and who would welcome a few ideas. If "Peanut Hunts" are good fun, why not hunt for our presents. Tie up the gifts and hide them in all sorts of places. Let each one hunt for their own. To vary this the children might be allowed to hunt for the gifts and distribute them to the owners.

Centre Piece of Gifts

Banked upon the table in the centre was a mound of cotton balls, set off by sprays of holly. From underneath this pile, red ribbon was stretched to each plate. The balls were sprinkled with diamond dust to give the effect of winter. At the close of the meal each person drew their ribbon. As the ball rolled toward them, they were pulled apart and disclosed some pretty little gift. This was a delightful finish to the meal.

Fish Pond

This is another way of distributing Christmas gifts. Stretch a sheet between doorways, and provide a fishing pole and line; the person behind the screen attaches the packages that are marked for the one who holds the pole. Some times they repeat this little verse:

Here is a fisherman come to fish.

With rod, hook and bait, and an empty dish,

So please little fishes come and be caught.

Though my line is long, my patience is short.

Game of Christmas Cake

A pad and pencil will be needed for this game. A number of questions are written on the pad, a blank is left for the answer which should be the name of a cake.

1. Farmer? Hoe Cake. 2. A Driver? Sponge. 3. A Miner? Gold Cake. 4. Milliner? Ribbon. 5. A Hucklester? Fruit. 6. A Drummer? Pound. 7. Little Jack Horner? Plum. 8. The Man in the Moon? Cheese. 9. Old Mother Hubbard? Poverty.

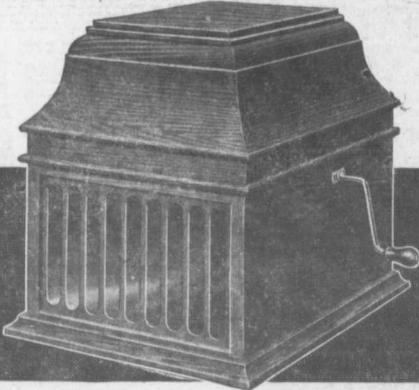
The game can be varied by using the names of candy, as follows:

What kind of candy would be bought by 1. School Master? Stick. 2. Baby? Kisses. 3. Dentist? Gum Drops. 4. Milkman? Cream. 5. Miller? Barley Sugar. 6. Dairy Maid? Butter Scotch.

Christmas Box Party

"Please come to my box party" at three o'clock. Bring a pair of scissors and an apron." This novel invitation came in my mail one day in December. When I opened the house we found the parlor filled with boxes of all sizes, and shapes, sewing tables, paste, and rolls of crepe paper, besides all sorts of stickers. Our hostess explained her idea. She said, "Last year in counting up the cost of boxes for sending my Christmas gifts, I found the cost almost equalled what I paid for the gifts, so I thought, with your help, we could make enough for ourselves and dispose of some for the Red Cross Fund. When tea was served I wish you could have seen the array of boxes. They would have done credit to Dennisons. One lady said, she had not enjoyed an afternoon as much since she had attended kindergarten."

When placing a patch-pocket on a coat of woollen or silk material, slip a narrow piece of featherbone through the top hem, and catch it fast to each side when stitching the pockets in place. This will prevent the pocket from sagging at the top, no matter how much weight there is placed in it.



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Among all his wonderful inventions his phonograph is Mr. Edison's pet and hobby. He worked for years striving to produce the most perfect phonograph. At last he has produced this new model, and now it will be sent to you on a startling offer. **Read:**

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If you wish to keep Mr. Edison's superb new instrument, send us only \$1.00 after the free trial. Pay the balance on the easiest kind of monthly payments.

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Hear all the latest up-to-date song hits of the big cities. Laugh until the tears stream down your face from laughing at the funniest of minstrel shows. Entertain your family and your friends with everything from Grand Opera to Comic Vaudeville—then if you choose, send it back.

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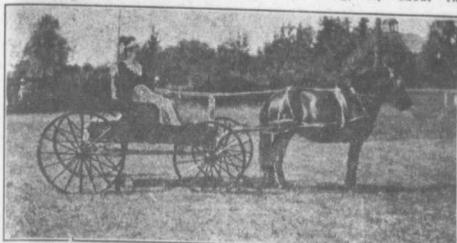
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OUR HOME CLUB

Christmas Love Gifts

"T'S nae the gift av that counts, It's the heart of the giver."
 "Last year I gave no Christmas presents to my friends, having announced to them previously that I was giving instead to the soldiers, and it quite spoiled the holiday for me, as it did not seem like Christmas at all, and I shall not do it again." This remark of a friend the other day set me to wondering why one could not remember one's friends suitably as well as our soldier boys, and I am going to tell you of a few practical hints that have come to me.
 Too often the whole spirit of Christmas is spoiled by going beyond one's means,—giving duty gifts as it were, or leaving things till the last.

side. Fasten loop of cord or ribbon on brass ring for a hanger. Paste paper on back to give neat finish. This will be found useful for shopping or telephone messages.
 3. Lavender Sachets—This is a chance to use up ends of ribbon or pieces of silk, for a variety of color of four or six sachets to be used amongst linen to make it dainty and prevent moths. Make them any size, but have them uniform, a three-inch square is suitable. Use a layer of wadding between two pieces of the ribbon; on the wadding sprinkle lavender as generously as possible. Lavender is procurable at any drug store, and ten cents worth will make with neat overhanding or machine stitching.
 4. Crochet or Tatting Edging—This takes time of course, but the expense is almost nothing. Any simple crochet edging or tatting, say about two



Who Wouldn't Be Proud of Such a Neat Turnout?

There is something about the ownership of a pony that appeals strongly to every normal girl and boy. The pleasure that can be derived from such an outfit is very great and there are many times, when the children can run errands for father and mother. The little girl seen in the illustration is the daughter of Mr. and Mrs. H. C. Hamill, York Co., Ont.

—Photo by an editor of Farm and Dairy.

Women seem to lack the courage to give simple articles for fear of criticism, whereas little thoughtful gifts that fit the needs of the receiver are so much ahead of extravagant ones. So do not drop the old-time custom of exchanging gifts, but rather make our gifts modest and seemly; give to our soldier lads first and then plan love gifts for our family and friends, which do not need to cost any money excepting a few cents for postage or wrappings, perhaps; for pretty wrappings help so wonderfully to enhance the gift and spread the holiday feeling. So gather together your scraps of chintz and ribbon, get out your crochet hook or tatting shuttle, make up a little pot of glue and you will soon be getting some wonderful infusions and will find it the most interesting game this planning a Christmas list without money. Here are the first contributions:

1. Pincushions—Out of some samples of chintz and cretonne, I made three pretty durable ones that hang up, so are particularly suitable for kitchen or bathroom. Stitch on the machine in bag shape, or square, fill very tightly with bran, sew across top and tie or sew on a bow of ribbon with loop or ring by which to hang it. That sounds simple and may be homely, but is there a housekeeper who won't appreciate and find daily use for such a gift?

2. Household Reminder—Cover a piece of cardboard about 4 in. x 6 in. (or a size to suit the pad), with chintz or a scrap of pretty material; paste on a memorandum pad firmly—these are to be had in different sizes, ranging in price from two cents up—and attach a small pencil with cord, by inserting it through covered cardboard, leaving fastening on under

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 This is a beautiful fur coat, made from the finest material, and is very popular style. This coat is very warm and comfortable to wear. It is made of the finest material, and is very warm and comfortable to wear. It is made of the finest material, and is very warm and comfortable to wear.

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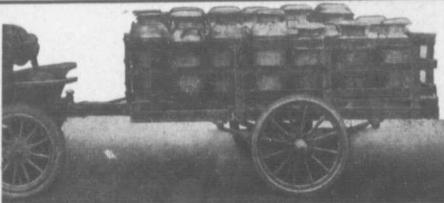
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The Brantford Trailer is made in three sizes. The price at which I am offering it will at once interest you. This trailer has been tested 40 miles an hour, loaded to capacity, and rides easily.

I want to send you prices and full particulars regarding the Brantford Trailer. Drop a card to me today.

R. O. CUMBAK, Manufacturer of Motor Trucks and Trailers Brantford, Ont.

For Next Week

OWING to lack of space in this Issue, we are forced to withhold some Live Stock Information till next week. We would ask our Breeders of dairy stock to keep this Xmas and Breeders' Number close on hand that they may refer to it, when our December 16th issue reaches them.

45 Head Auction Sale 45 Head REGISTERED HOLSTEINS

Practically all under four years old. **WEDNESDAY, DEC. 22nd, 1915**

Herd sires in use and to be sold: **Ouvilla Calamity Abbecker**, a show bull that has 2 25-lb. 3-year-old sisters.

King Sagle of Forest Ridge 10th, a yearling whose dam and sire's dam have each made over 30 lbs. butter in 7 days.

Mt. Elgin is in the Pt. Burwell Branch of C. P. Ry. Stock will be sold between the noon and 5 o'clock trains.

G. T. R. and M. C. R. trains met at Tillsonburg by appointment.

Catalogues on request. **GEO. KILGOUR, Prop., L. H. LIPSHIT, Sales Managers, Stratfordville, Ont.** **MT. ELGIN, ONT., LINDBAY & POUND, Auctioneers.**

highly appreciated. Do you know that these may be safely sent by parcel post any distance for a few cents? Pack excelsior around them tightly and put in a fairly strong pasteboard box.

6 Potted Plant—One of your own tenderly nurtured slips or bulbs or a wood fern (the evergreen which are plentiful in the woods), makes an ideal gift as its value increases daily. The pot may be neatly covered with chintz or wall paper, giving it securely.

But jelly and plants are but a beginning of the many things the homemaker on the farm can give—a few fresh eggs daintily boxed, a little pat of butter, decorated with parsley or made into butter balls to give it a festive look; a bottle of horse-radish, or even a bag of rosy apples.—"Aunt Mary."

Geo. Keith, Farmers' Seedsman

(Continued from page 12)

This seed if examined under the microscope will be found to have a crasse or crevice in it, similar to that found in the wheat berry. In this crevice is a very fine silk lined fringe. In the mill through which the clover is run, the rolls are covered with cloth. This cloth on the rolls catches the silky fringe of the bushclover and in this way abstracts it from the clover seed.

I am unwilling to close this article without saying something about Mr. Geo. Keith on the side of his personality—this to meet the wishes of my own dear, and I trust also the wishes of others, business customers and friends who have had contact with him through many years. This is my excuse or reason for what follows.

ON HIS PERSONAL RIDE.

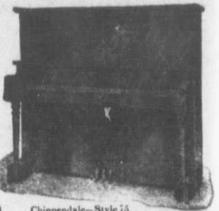
Aberdeen men are ever distinguished for intense, quick and purposeful nature, and in George Keith you find the Aberdeenshire qualities very marked—undiluted integrity, devotion to business, straight forward dealing, and a horizon of outlook that extends far beyond local bounds. As a Scotsman, Mr. Keith has the cleanish intellect deeply ingrained, and this has led him to take a sincere and abiding interest in the objects of the Forcino Branch of the St. Andrew's Society of which he has been treasurer for many years. This Society specially cares for recently arrived Scotch immigrants, who are in need of temporary aid.

Mr. Keith is getting on in years—he is not far from the four-score mark. Yet he is in the dust of his office. He continues to be the financial and executive head of his business. Two sons, George and David, are associated with him as members of the firm of George Keith & Sons. George supervises the buying, wholesale and shipping departments, and David the retail and publicity departments. Both sons have made their name in their respective lines. It must be gratifying to Mr. Keith to know that the business he has founded and reared is to be continued after him by successors animated by his own spirit and standards and having an energy and zeal which assure the perpetuation of the high place held by the Keith business among important business concerns. Mr. David Keith is just now serving his King and Country as Lieutenant in the 35th Battalion lately.

If Mr. Keith is less brisk of step than many are surrendering to the weight of years. He walks to and from business daily a matter of three and half miles each journey. Thus he keeps himself in health. Many men of half his age and less, will not walk a mile if they can bring it, their motor cars or street cars bearing them everywhere. If they survive beyond the age of three and half miles each day, it is pretty safe to say that their health, vigor and content of mind will be inferior to the condition of both in which Mr. Keith finds himself to-day. By simplicity of life, by plain living and by his adherence to the precepts and principles first learned in the land of his forefathers, Mr. Keith keeps himself fit for his work and prolongs his life of usefulness to his fellow men.

Among Toronto citizens, George Keith is esteemed above most by those whose privilege it is to know him and whose acquaintance he stands four square, and is an example to younger men—steadying force in these modern days when ideas are too often dimmed by the glimmer of riches and moral fibre so vitiated as a result of non-resistance to temptations as sometimes, sometimes frankly gross.

This brief chronicle is a record given me with my peculiar pleasure, for Mr. Keith was my father's friend twenty-five years ago, and later.—John O. Kirkwood.



Chippendale—Style 13

Proof of \$100 Saving

We challenge if we can put into your hands positive proof of our ability to save you \$100 on the price of a piano, you will be interested.

Here is our plain statement:

The SHERLOCK-MANNING 20th Century Piano

"Canada's Biggest Piano Value" is the height of achievement in case, tone, finish, workmanship, durability, action, hammers, strings—and every part; and you get it for \$100 less, backed by a ten-year guarantee.

WRITE FOR THE PROOF

Write Department 21, for our handsome Art Catalogue "P" and it comes to you by return mail, with satisfactory proof of every claim we make.

The Sherlock-Manning Piano Co. London, Canada (No street address necessary) 71

Do you want to earn \$10 a week or more in your own home?

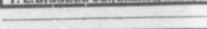
Reliable persons will be furnished with profitable, all-year-round employment on an Auto-Knitting Machines. \$10 per week readily earned. We teach you at home, distance is no hindrance. Write for particulars, rates of pay, send 5c stamp.



AUTO-KNITTER HOSEY CO. Dept. 271 277 College St., Toronto (Aiso of Leicester, England)

The Bissell Steel Stone Boat

Built of stiff steel plate with mulling around the edges and steel runners underneath. 2 ft. 3 in. and 3 ft. wide and different styles for all kinds of farm work. Write Dept. H for folder and prices.



T. E. BISSELL CO., Limited, Elora, Ont.

Wanted Horse Hides and Cattle Hides for coats and robes.

Also all kinds of skins and furs. Send them to me and have them tanned soft and pliable. **B. P. BELL - DELHI, ONT.**

FOR SALE AND WANT ADVERTISING

FOR SALE Butcher cutter, in good repair, cuts fifty standard sized prints from solid. Will be sold cheap. Write—**The TORONTO CREAMERY CO. Ltd., 3 Church St., Toronto**

WANTED to hear from owner of good Farm for sale. State cash price and description.—D. F. Bush, Minneapolis, Minn.

WANTED—An experienced, capable high-class buttermaker for large city plant. Steady employment to the right man. State experience, references and wages expected to Box No. 570, Farm and Dairy, Peterboro, Ont.

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What Fashion Folks Approve of at Present

Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folk. They can be relied upon to be the latest models and include the most modern features of the season's patterns. When sending in Farm and Dairy your order please be careful to state bust or waist measure for adults, age for children and the number of patterns desired. Price of all patterns is One Dollar, for each Address all orders to Pattern Dept., Farm and Dairy, Fletchboro, Ont.



AS THE SEASON advances it is interesting to note the materials that are being featured. Early in the season we were led to believe that serge, mairidine, cheviot cloth, tweeds and velvet were to be used most extensively. While these materials are still finding much favor, others are coming into prominence as well. Heavy chiffon cloth is used in great quantities for combination with both silk and wool. Soft satins in the same color or also with chiffon cloth. From all indications, this winter will be known as a silk one, too, there being a wide range from which to choose.

The full sleeve, which has been threatening an appearance lately, seems to be gradually working its way to the front. While they are still small, they deviate from the close tight fitting sleeve. The lines so far most in evidence are a close-fitting lower sleeve or gauntlet cuff, over which a moderately full upper sleeve droops a little at the elbow. There are also smart models with upper sleeve sections full all around.

1109-Girl's Dress—A unique costume for the little girl is shown herewith. As will be noted from the smaller view, the sleeves and gumpie are made in one, the outer part of the dress being separate. Such a costume will give great freedom at the arms and waist. The long waisted effect with fairly wide belt is also a pleasing feature. Four sizes: 4, 6, 10 and 12 years.

1471-Lady's Apron—The bulky loose effect so often noticed in aprons, is diminished in this design by the belt across the back and sides, thus enabling one to make the apron fit neatly. A chic finishing touch can be added by having the belt and

cuff on sleeves of contrasting material. Three sizes: small, medium and large.

1482-Lady's Shirt Waist—The home dressmaker always welcomes a new shirt waist design and the one illustrated should prove a favorite. Glass buttons are very popular for trimming and can be secured in many colors and combinations of color. They are all that would be necessary in the trimming line for such a blouse. Six sizes: 34 to 44 inches bust measure.

1481-Boy's Suit—Here is a cute suit for the little man. As braid trimming is so fashionable this season it can be used to good advantage on such a suit. Notice the neat effect of the rounded collar in the smaller view. One style feature of this suit is the straight trousers, they being a change from the b. omers so much worn. Four sizes: 4, 4 1/2 and 6 years.

1496-Lady's House Dress—The feature about this dress that is unique is the reversible closing. One could keep such a dress looking neat and clean for a greater length of time on this account. Six sizes: 34 to 44 inches bust measure.

1485-Lady's Suit—This costume has several style features that we do not commonly see, there being two of these materials used. The back of the blouse is also rather out of the ordinary. Notice the new cuff and new high collar. This model calls for two patterns, 10 cents for each. The blouse is cut in size from 34 to 44 inches bust measure and the skirt in sizes from 22 to 38 inches waist measure.

1472-Girl's Dress—The Empire effect in the style features of this charming little outfit. Buttons are the only trimming necessary, unless one wishes to use a collar and gumpie of contrasting material. Four sizes: 4, 6, 8 and 10 years.

The Perfect Christmas Gift
—A—
NEW SCALE WILLIAMS Player Piano



The Gift of Music
The Ability to Leave the Ranks of Listeners and Take a Place Among the Creators of Music

COULD you ask for a greater gift yourself?—Than this, the inestimable privilege conferred by the possession of a New Scale Williams Player Piano. Could you bestow a greater gift on another?

This beautiful instrument does not simply enable you to hear more music and better music, but makes you and all your family musical creators.

Frankly, can any other gift compare with this? Can you think of any other thing so certain to inspire the sentiment of joy and gratitude of the entire family on Christmas morning?

A beautiful Pianoforte with gleaming keys and glossy sides—a Pianoforte that enables its every possessor to play, to personally interpret, all the good music ever written.

Write for free catalogue, "Art and the Critic," and find out how you can have a player piano in your home on Christmas morning for no more than a simple gift would cost. Address Dept. 314

THE WILLIAMS PIANO CO., Limited
Oshawa Ontario

KETTLES AND POTS

Thoroughly Cleaned With Little Labor by



Large Sifter Can, with Full Directions, 10c

When You Write—Mention Farm and Dairy

Why Cooperation is Succeeding



IN years past there have been a great many farmers' clubs, Granges, beef clubs and other organizations aimed at securing united or cooperative action on the part of the farmers or residents in rural districts, but a great many of them were short lived. Have you ever wondered why? The telephone is the answer.

The telephone to-day must be recognized as one of the greatest factors in making cooperation among the rural residents a success. When a car of seed corn or salt, or coal, or groceries is shipped to a farmers' club in a community where they have a properly organized telephone system, all the secretary has to do is to

call down at his desk and call up the different members of the club and tell them that the goods are at the station. How much more convenient than sending word around in the old way.

The telephone is making the success of cooperative action among the farming community possible. The telephone keeps the members in close touch one with the other. It enables the plans laid at a meeting to be carried out and completed in detail during the week as has never been possible under other conditions.

The Rural Phone is Doing the Work

OUR company has been identified with the organization of the majority of the rural telephone systems in Ontario. In fact, we were the pioneers in this field, and had to meet the opposition of some firms who now pretend to be the friends of the movement. We have a strong service department that is at the command of farmers' clubs, showing them how they can organize and have a local or municipal telephone system in their home district. We have maintained this system for years, and, in fact, are in a position to start you and guide you towards a local telephone system.

WE will be glad to have a representative attend any farmers' club and explain telephone organization and what has been done in the way of developing local telephone systems. We will also gladly assist any way we can to bring to any local community the benefits of a rural telephone system.

Write us if you are interested and we will send you our literature, which gives you up-to-date information in regard to local telephone systems.

If you are aiming at getting the benefits of cooperation the first step to take in order to ensure the success of your efforts along that line is to secure local telephone service, that reaches practically every resident in your municipality.

Canadian Independent Telephone Co.

Limited

263 Adelaide St. West - Toronto

Rauwerd Count De Kol Lady Pauline

Her Semi-Official Record is 29,017 lbs. Milk and 890.6 lbs. Fat.

RAUWERD Count De Kol Lady Pauline owned and developed by G. A. Brethen, Hill-Crest Farm, Norwood, Ont., is the newest Canadian champion. Beginning her record three days after freshening in the semi-official A. R. O. she has produced 29,017 lbs. of milk, 890.6 lbs. fat (118.25 butter, 80 per cent fat) in 803 consecutive days. This makes her the Canadian champion milk cow by a wide margin, only three cows in the world having exceeded her year's milk production, one in California, another in the State of Washington while the third is owned in Massachusetts. Her nearest Canadian competitor is the well-known Britton Columbian cow, Madam Posch Pauline, with a record of something over 27,000 lbs. Rauwerd averaged nearly 90 lbs. of milk a day for eight months, and for that period exceeded the World's Champion cow, Tilly Alcatraz, by a substantial margin.

Her production throughout was entirely normal and at no time in the race did she appear at all worried or give any indication that to her there was anything out of the ordinary in the making of a 29 to 80 thousand pound record. That this fact was appreciated by those who were invariably evidenced by the exclamation of every visitor to the farm as to her splendid condition. To each one of those who to outsiders it was not so much what she had done as how she did it! After having produced over 26,000 lbs. milk in 10 months and travelled 800 miles in the show circuit, to retain enough bloom to win second money in a class of 18 at Toronto and first prize at Ottawa in the strongest Holstein classes ever brought out at these shows is an additional proof that to Rauwerd the making of a 29,000-lb. record is as easy of accomplishment as is a 60,000 lb. production to the ordinary cow. We realize that by refraining from exhibiting her record would very probably have been increased by some 400 or 600 lbs. milk. We believe however, that the opportunity given her at these important exhibitions to establish the fact that she possesses type as well as extraordinary productive ability and that testing, judicially conducted is not necessarily injurious but positively beneficial in the developing of the cow, is sure to prove of more lasting benefit both to the cow and to the breed than a few additional lbs. to her record. "Like begets like," is probably recognized as the most potent principle in breeding and in the case of Rauwerd is strikingly established. A granddaughter of the great Pieterje King Count De Kol (who has thirteen daughters with an average daily milk

production of 100 lb.) through a son who has a 100 pound full sister with over 30 lbs. butter in seven days, Rauwerd has proven true to her ancestry and not only shown extraordinary production herself but through her first daughter in milk, De Kol Mutual Countess, the former Canadian champion, junior, three-year-old (Present champion in eight months division) she has proven her power of reproduction in the highest degree. The combined semi-official record of this cow and her junior three-year-old daughter of 49,679 lbs. milk, 1,980.75 lbs. butter in eight year is equalled we believe but by one other mother and daughter that ever lived and proves in no uncertain way that these cows are not only producers but reproducers the kind that breed on. The knowledge of these facts is considered sufficiently important to cause her owner to use exclusively in the breeding operations at Hill-Crest the two sons of Rauwerd and her grand son the only son of her daughter, De Kol Mutual Countess.

Feed and Attention

During the test home-grown feed formed a very large portion of her ration, mangels or turnips being possibly of really more value to her in the production of large flow of milk than any other one feed. She ate regularly around 100 lbs. roots a day, while in the stable and we have no doubt these were of great aid in maintaining her physical fit.

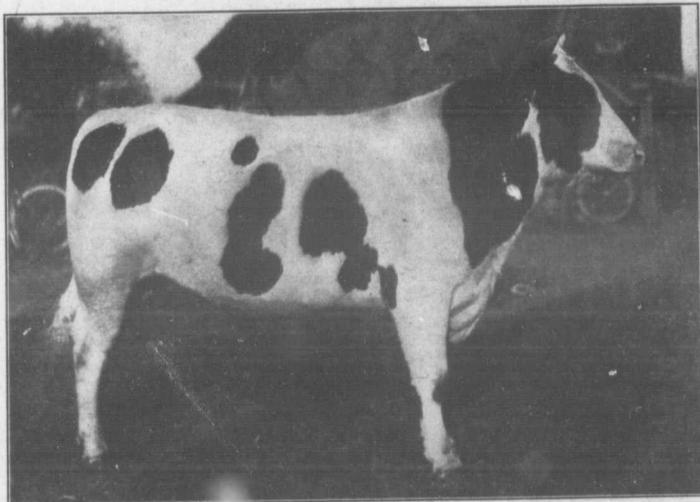
Oil meal, cotton seed, gluten with some distillers' grain, combined with bran and chop varied from time to time to increase its palatability, formed her grain ration. Ensilage clover hay and pasture supplied the roughage.

Care was always taken that she have an abundance of water and salt and if she showed any inclination to fall off we as promptly as possible got busy to ascertain and correct the cause before any serious loss in production resulted.

Rauwerd has finished her year in the best possible condition and as she is now well on in calf believing the past year's work has been merely a developer we look forward to even greater things in the future.

We wish to express our appreciation for the kindly interest exhibited by fellow breeders from all parts of Canada in her record and her record and while we regret we were unable to bring the highest honors in milk production to Canada we still have the satisfaction that her 29,000 lb record was attained in a large measure by over 80,000 lb. ideal and this fact should prove an inspiration to ourselves and others to go forward to even greater things in our work with the Holstein cows.

King Segis Alcartra Spofford



A "King" He is in Type—Vigor—Size

King's dam is Fairmont Netherland Poach—the youngest cow in the world to make 29.60 lbs. Had she freshened seven hours earlier, she would have held the World's Championship for Jr. two-year-olds. As a four-year-old she has a mark of 33.40 lbs. in seven days. Such records are worth placing behind your herd.

To Our Fellow Breeders of Holsteins—

WHEN we purchased "King" from John Arfmann two years ago, to head our combined herds, we knew we were securing not only one of the most richly bred sires in America, but also a sire whose type and body are hard to fault. "King" has more than lived up to our expectations. He is a wonderfully developed sire. At twenty months "King", as shown above, weighs 1,760 lbs.

But what is better still, he is stamping himself on his offspring. Already we have two sons of "King"—as fine lads as you could wish to see—deep, straight, and strong. One of these is from a 103-lb.-a-day cow. These fellows are going to make good, and when they develop, they will put some breeders' herds in the front rank. We have also a splendid young sire ready for service from an 88-lb. two-year-old, and by a son of King Pontiac Artis Canada. Write us about these lads.

IN addition to our own herd, "King" has already been used by a great many fellow-breeders who know the value of his breeding to their herds. "King" is a son of the great "King Segis Pontiac Alcartra," the highest valued sire in the world. Six of "King's" sisters average 21 lbs. as Jr. two-year-olds—a record never equaled before. It is such blood that is making him in keener demand every day. It is this blood that will make **your** herd—your young stock—produce more in actual dollars to you. It is the use of the best sires that has put every big breeder to the front.

With the 30-lb. habit fixed in his ancestors, and with the same blood that produced the World's Champion long distance cow, Tilly Alcartra—with 30,400 lbs. milk in one year—we can confidently expect big results from his sons and daughters.

Again we are in a position to accept a limited number of females for "King's" services. All are subject to approval.

If you are interested in "King" and in getting a stronger line of blood into your herd, write us for his full pedigree and service charges on one or more females.

Leavens & Purtelle - Bloomfield, Ont.

And this Brother—

King Segis Pontiac Posch



King at Ten Months.



The Kind King Produces.

Are
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Interested

Are
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Interested

In a sire, the records of whose dam and sire's dam (both as three-year-olds) average 31.83.

The records of whose dam and three nearest dams of his sire average 32.34.

The records of whose ten nearest dams average 29.30.

The records of whose nineteen nearest dams average 27.12.

A sire who has the 30-lb. habit on both sides and is directly descended from Tilly Alcartra, the 30,400-lb. in a year.

In backing up your herd with blood that will make every animal you produce worth more in dollars to you.

With blood that will not only make your herd produce more butter and milk per year but will give you offspring that will give you a higher standing in the show ring—stronger and better bodied animals.

In short, are you interested in having your herd earn more in dollars and cents for you?

—If You Are—

Then consider what "King" is and the breeding that is behind him. He represents the world-famous cross of King Segis Pontiac with a daughter of King of the Pontiacs. Individually, "King" is one of the finest sires in Ontario. Note the strong masculine head. And he is a producer too. Eleven out of thirteen of his calves are females.

If you would put such blood as "King's" behind your herd, write us about his services. Use him on the best female in your stables. He will throw you a sire that will put your herd in the front ranks in type, style and the ability to produce. As "King's" services are not heavily required in the Manor Farm herd at the present time, we are offering a very attractive rate on his services from now until January 15th. Write us about terms on one or more females. Keep in mind, too, that "King" is a full brother to King Segis Pontiac Spofford, shown on the opposite page.

Gordon S. Gooderham Manor Farm Clarkson, Ont.

MARKET REVIEW AND FORECAST

TORONTO, December 6.—Business is good. Reports in all lines of trade indicate a greater volume of business than at this time a year ago. The marketing of the crop is of course mainly responsible. The war has indirectly helped business by stimulating optimism. It has relieved the banks of surplus deposits. Reports received to date of the annual meetings of corporations, indicate that generally profits are good, and the usual dividends will be declared. A peculiar situation has arisen in the produce trade. This year, for the first time in many years, the exports of butter and eggs to the Old Country have been heavy. As a result the closing of the season of production finds us with limited quantities of both butter and eggs on hand while on the other side of the line the number of eggs in storage is far above normal. The chances are that the domestic consumption of eggs this winter may come largely from the United States. To facilitate this movement and keep down prices to consumers, the Montreal Chamber of Commerce has suggested that the duties on both commodities be removed. The Farm and Dairy market man wonders if the

Chamber of Commerce would be equally willing to place itself on record as favoring the removal of duties on goods the farmers must buy as well as the ones they must sell. A review of the farm markets of the week, shows wheat steadily rising, mill feeds stronger, coarse grains slightly stronger and other produce very much as last week.

WHEAT. The wheat market has not yet found itself since the government's action in commandeering grain. Prices have mounted steadily on all markets. The advances, however, are probably not as great as would have occurred had the government come openly into the market for the purchase of 10,000,000 bushels of wheat. Their action, however, may cause serious loss to many grain dealers and will probably be of advantage to many grain growers who still have their wheat on hand. No. 1 Northern is now quoted, \$1.21. No. 1, \$1.19. No. 3, \$1.16. Ontario wheat has moved up but slightly. No. 3 being quoted \$6 to 9c; slightly sprouted and tough, \$6 to 8c; sprouted or smutty and tough, \$5 to 8c.

COARSE GRAINS. The market is slightly stronger all along the line, but as coarse grains usually move in sympathy with wheat, quotations are not as much higher as we might expect. Oats, C. W. No. 2, \$10; Ontario No. 3, \$7 to 8c; commercial oats, \$6 to 7c; American corn, No. 3, 80c; No. 3, 75c; Canadian corn, No. 2, 75c; \$1.20 to \$1.75; barley, malting, \$6 to 6c; feed, 40c to 50c; rye, \$6 to 7c; tonka, \$6 to 8c, and buckwheat, \$6 to 7c. The Montreal wholesale market quotes as follows: Oats, extra No. 1 feed, 40c; local white, 45c to 46c; American corn, 75c to 77c; barley, malting, 55c; buckwheat, 7c.

MILL FEEDS. Prices have advanced \$1 all round

Bran, \$25; shorts, \$34; middlings, \$36; feed, \$37; \$1.50; oil cake meal, \$27 to \$30; milled, \$28; corn meal, sack, \$23. On the Montreal market, bran is quoted \$22; shorts, \$33; middlings, \$35 to \$36; moulis, \$40 to \$45.

HAY AND STRAW. On the Toronto market No. 1 hay is quoted \$16 to \$17.50 on track; No. 2, \$15 to \$14 baled straw, \$4.50. The Montreal market, No. 1 hay, \$19.50 to \$21; No. 2, \$18.50 to \$19; No. 3, \$17 to \$17.50, and rejected hay \$16 to \$16.50.

EGGS AND POULTRY. The past week has seen a stronger demand for export eggs. The shipments that have gone forward, however, have been largely in filling of old orders. On the Toronto market, special (cartons) new laid, 42c to 45c; extras, storage, 35c to 35c; straight storage, 35c to 35c. At Montreal, new laid eggs have sold as high as 46c and select storage, 35c; No. 1 storage, 35c to 35c.

Wholesale poultry quotations are: Old fowl, live, \$6 to 11c; dressed, 13c to 14c; chickens, live, 11c to 12c; dressed, 15c to 16c; spring broilers, 12c to 15c; dressed, 17c to 18c; turkeys, live, 14c to 15c; dressed, 16c to 18c; ducklings, live, 11c to 12c; dressed, 15c to 16c; geese, live, 8c to 9c; dressed, 15c to 15c.

DAIRY PRODUCE. Butter now holds first place in the Canadian dairy produce market as the cheese season is practically over. During the past week the market has been strong, \$22.00 to \$26, and seconds, 22c to 26c. A feature of the trade has been the large receipts during the past four months. From May 1st to Aug. 18th receipts at Montreal were 35,000 packages less than for the same period the year previous, but so steady has been the increase since that that receipts to date are 9,200 packages over the same period last year. On the Toronto market, finest fresh made creamery prints are quoted 31c to 35c; creamery, 30c; dairy prints, 28c to 30c, and bakers, 25c to 28c.

The most interesting item in connection with the cheese situation is the report that the New Zealand government has commandeered the bulk of the cheese made of the season, buying direct from the factories and totalling eliminating middlemen. This action on the part of the New Zealand government has shocked the interests of those who now hold cheese in Canada, the price of which now ranges from 17c to 27c for finest Western.

LIVE STOCK. Cattle receipts dropped 300 hundred this week as compared with a week ago. The quality of the offering was undesirable, rough, unimproved, and all meeting a few weeks more feeding. Of course there were exceptional lots of good to choice butchers' cattle which were called up readily. The demand for this kind is increasing every day of the week. There was also a ready market for underfinished stuff and the total results of the week's trading has been an advance all round. Quotations are now as follows: Heavy choice steers, \$7.25 to \$8.50; handy choice steers, \$7.45 to \$7.85; good butchers, \$7.15 to \$7.65; medium to medium, \$6.75 to \$7.15; heifers, \$6 to \$7.00; choice cows, \$6 to \$6.50; medium to good, \$5.50 to \$6; bulls, \$4 to \$7.10; fowlers, \$6.25 to \$6.85; stockers, \$4.75 to \$5.50; canners and cullers, \$3.25 to \$4.75. Choice milk cows sold steadily at 87c to 90c, with an occasional one selling as high as \$1.00. Calves are commended from \$50 to \$130. Galves ranged from \$4 to \$10.

Priores for milch cows are good and the demand active. Spring lambs, \$19 to \$27; culls, \$6 to \$7.50; light ewes, \$6 to \$7; culls, \$3 to \$4.50. Swine were a trifle easier this week. Hogs are an unusual number, \$19.25 to \$24.65, and f.o.b. country, \$21.15 to \$23.30. Light and heavy sows \$19.25 to \$24.65. Prices for butchers at Montreal. Sheep and lambs are easy with prospects of going still lower and in hopes the supply is larger than the demand with a consequent drop in prices. Butchers' cattle, choice, \$15.00 to \$17.00; medium, \$12 to \$15; common, \$5 to \$6.75; butchers' cattle, choice cows, \$6.25; medium, \$5 to \$6.50; bulls, \$5 to \$6.50. Milkers, choice, each, \$90 to \$95; common and medium, each, \$80 to \$85; springers, \$65 to \$75. Sheep, ewes, \$4 to \$7.50; culls, \$3 to \$4.50; lambs, \$6.25, bucks and kids, \$5.50 to \$6.75; lambs, \$3.75 to \$5.50. Hogs off good, \$9.75 to \$10.

Dam of King S. A. C. she has the following record, and her owner says she will do better this winter: 7 days, 694 lb. milk; 14c. 7 days, the butter for 30 days, 149.4 lb. milk. At 5 yrs. 51 mths.; 30.23 lbs. milk for 7 days, 686.80 lbs. milk; 11c. 28 days, the butter for 30 days, 2,496.50 lbs. milk. Records of 30 days of living butter for 7 days, 616.60 lbs. milk; 11c. 28 days, 1,868.70 lbs. milk for 30 days. She is the dam of Fairmont Pontiac Calamity 2nd, who has the following record, the butter for 7 days, Her dam is 2 1/2 yrs. old, daughter of Hengervold de Kol. Her dam is 2 1/2 yrs. old, daughter, 1 A.R.O. son, Gordon Glen Pontiac, who is sire of three 25-lb. cows, and a 30-lb. 3-yr.-old. She is full sister to Pontiac Hengervold Parthena, the best son of Hengervold de Kol. He is a sire of 40 A.R.O. daughters, 3 above 30 lbs. including world's record 4-yr.-old. He was sold for \$9,000. This is the best record ever paid for a bull of his age.

FOR SALE Two bulls, one calved April 10th, Dam, Merensia Calamity Puck, seven days record, 7 lbs. of milk and 77 lbs. of butter. Price \$100. The other is a grandson of this cow. For further particulars, apply to— W. Fred Falls, B. E. R., Millbrook, Ont. Registered Holstein Heifer Calves up seven months of age for sale, from excellent milking dams. Price \$375 five dams. Wm. S. Shearer, B. E. No. 2, Listowel

Breed for type and Fairmont Pontiac Calamity (143877) Dam of King S. A. C. she has the following record, and her owner says she will do better this winter: 7 days, 694 lb. milk; 14c. 7 days, the butter for 30 days, 149.4 lb. milk. At 5 yrs. 51 mths.; 30.23 lbs. milk for 7 days, 686.80 lbs. milk; 11c. 28 days, the butter for 30 days, 2,496.50 lbs. milk. Records of 30 days of living butter for 7 days, 616.60 lbs. milk; 11c. 28 days, 1,868.70 lbs. milk for 30 days. She is the dam of Fairmont Pontiac Calamity 2nd, who has the following record, the butter for 7 days, Her dam is 2 1/2 yrs. old, daughter of Hengervold de Kol. Her dam is 2 1/2 yrs. old, daughter, 1 A.R.O. son, Gordon Glen Pontiac, who is sire of three 25-lb. cows, and a 30-lb. 3-yr.-old. She is full sister to Pontiac Hengervold Parthena, the best son of Hengervold de Kol. He is a sire of 40 A.R.O. daughters, 3 above 30 lbs. including world's record 4-yr.-old. He was sold for \$9,000. This is the best record ever paid for a bull of his age. Five Sons Sired by King Segis Alcartra Calamity His calves are without an exception, long, straight, deep-bodied handsome-looking youngsters. No. 1, on the right, goes to Glenwood Dairy, Charlveton, Mich. His dam is a good daughter of Pontiac Hermes. No. 2 goes to Mr. John Archibald, of Searforth, Ont., and is the best bull ever sold. He is out of a 24 lb. 3-yr.-old, that has milked 76 lbs. in a day. Her dam is a 25-lb. cow. No. 3, is from a 22.6 lb. 3-yr.-old. Her dam is Pontiac Hermes, having a 29 lb. record for 7 days. No. 4, from a 21.6-yr. cow. No. 5, from a 24.6 lb. 3-yr.-old show cow that has milked over 600 lbs. in the last 3 are for sale. Write for Pedigree and Prices. OWNED BY ARBOGAST BROS. & P. S. ARBOGAST - SEBRINGVILLE, ONT.

OUR FARMERS' CLUB

Correspondence Invited.

PRINCE EDWARD ISLAND
PRINCE CO., P.E.I.

KENNINGTON, Dec. 1—There were only a few cold days in November, the plow never having been stopped by frost, but there were a lot of rainy days. The ground is covered with snow which fell last night with warm weather and the ground not frozen. They have started to lay pigs for the Montreal market at a rate for from 150 to 250 lbs.; over 250 lbs. for Old sows, 65. This is a new market for Kennington. Beef cattle are in good demand but the price is as high as usual. Chickens 12½ to 16; fowl 8 to 10. There is no market for horses here this fall—T. G.

ONTARIO

HASTINGS CO., ONT.

STETLING, Dec. 2—Farms work is largely done and agricultural interest from now on will centre in chores and in the work of our recently re-organized Farmers' Club. The officers for the following year are: President, G. F. Spencer; Vice-Pres., Treasurer, Frank Balby; Directors, Edgar Makowen, John Reid, James Sharpe. Last year we handled 10 cars of grain, all kinds; one car coal, one car salt, binder twine, coal oil, engine, clover seed and seed corn. Total cost \$8,800.—E. H.

VICTORIA CO., ONT.

OMMEREE, Dec. 1—Winter seems to be setting in earnest. Our Farmers' Club, which is we believe, one of the strongest in the province, recently held a meeting, and in the report of the year's business, we found that the saving to our members through buying goods wholesale has amounted to \$60, with a nice little balance in the treasury. W. H. Kennedy is our new secretary. He gets a fixed salary for taking care of the commercial affairs of the club. All the other officers have been changed and we trust that under new leadership we shall have an even more successful year than the last one.—F. G.

HELTON CO., ONT.

MILTON, Nov. 23—Farmers are finishing plowing. Cattle are being put in for winter and are in fine shape. Sales are plentiful and stock sells high, especially dairy cows. Horses are a little dull. Sev-

eral districts are thinking of organizing Farmers' Clubs.—A. F. MacN.

DUFFERIN CO., ONT.

BELLESBY, Dec. 2—The latest addition to the organizations of our district is a Farmers' Club known as the Bellesby Club. R. H. Halbert, the president of the United Farmers of Ontario, came here and organized the club with 12 members. Our president is William McKelroy; Vice-President, Robert McCutcheon and Secretary, Treasurer, A. M. Fison. Fall work is now completed.—J. M.

OXFORD CO., ONT.

WOODSTOCK, Nov. 30—We have a blustering cold day with a few snow flurries. It looks as if winter was setting in. Cattle are all established for some time so that people in general are prepared for the winter. There have been a great many sales this fall; prices have been a good many of the cows selling for \$100 and over. A two year old cow and a yearling sold for \$600. There is a farmers' club in this section, and it is doing a good business. We get a better price for a good deal cheaper by buying so much at. We got a car everything in by car lots, milk, while some paid \$135.—A.M.McD.

SIMCOE, Nov. 23—Have had a really open fall, but very dry until recent rains, which have helped the fall plow in heavy soils. Roots have been harvested in splendid condition, and young stock are being outside up till present; a great many cows also. Many of the meadows have been too closely pastured due to the fine fall. Work is well in hand on the farms. Rough feed is plentiful. Corn stalks, \$3 a load; straw, \$3 to \$5 at stack; \$3 to \$7 good hay, \$15. Woodhouse Farm—F.C.B.

NORFOLK CO., ONT.

GREY CO., ONT.
THORNBURY, Nov. 23—We are having lovely weather. Our snow has all disappeared. The Women's Institute of Clarkston number of socks now sent forward. The 1,069. The good work done in the knitting of socks still continues. The price paid for hops on Tuesday was \$9 a cwt. Butter is higher at 27c, and eggs 36c. On Collingwood market eggs are 40c and butter 30c, according to quality. Bran has dropped \$1.25 up; wheat chop, \$1.40; hay, \$10 up.—F. P.

SASKATCHEWAN

QU'APPELLE CO., SASK.

QU'APPELLE, Nov. 23—The harvest was badly delayed by rain and a little snow. However we got a fine spell, and though short of seed the grain was safely threshed before the heavy snow storm on Nov. 7th, which was followed by continuous lighter falls every few days. The snow is much deeper than usual at this time of year and winter has been in force since the 9th, although never very cold. What little grain left in the stock will not be fit to thresh till spring. Grains of grain averaged good with fair to good wheat yields; coarse grain. Though good were failures, the fallow ground being the only satisfactory yield around here. The wheat prices for our loads were according to contract prices, less usual charges but on street prices the difference is 2½ to 3c on G.T.P. branch. Feed will be scarce as winter promises to be long.—R. H. C.

SASKATOON CO., SASK.

BLUACHER, Nov. 23—Threshing is practically completed with all grain yields very good. Market prices as follows: Ducks, 14c; geese, 15c; fowl, 15c; chickens, 16c to 20c; turkeys, 16 to 20c; eggs scarce, 38; new laid, 40c; butter, 30c; pork, 12c; beef, 10c to 10c; hams, 10c to 10c; mutton, 10c; mutton, 10c to 10c; 3c a lb; celery, 10c a lb. Nice winter, weather are improving. Horses are selling from \$140 and up, according to class.—W. J. G. H.

GOSSIP FROM LYNDALE FARM.

THE big herd of Brown Bros., at Lym. Ont., has gone in winter quarters in good condition. The herd sire, King of King Urmia, now in very ordinary condition, weighs 2,300 lbs. His sire, King of the Hengervelds, has 39 A.R.O. daughters, none of them over four years. One daughter, Queen of the Hengervelds, holds the world's sire, Pieterie Hengerveld's Count De Kol, has 99 A.R.O. daughters. His ters are well known to everyone interested in Holsteins.

The dam of the King of the Hengerveld's May Hartog Pauline De Kol, an excellent champion, has a 7 day milk record of 63.5 lbs. milk in 23 hours, 116 lbs. and 112 lbs. butter and 5,525 lbs. milk in 30 days. King Urmia's dam, Urmace-

she 2nd, is by Sir Glyde, who has 45 A.R.O. daughters, three of them over 30 lbs. Bhs has a 7-day butter record of 31.4 lbs. butter and 117.99 lbs. in 30 days and has four A.R.O. daughters, one of them, Urmia Burke, has a 7-day butter record of 31.4 lbs.; another one, Urmacegra, 31.10 lbs. Urmia Burke has a 7-day butter record of 33.07 lbs. in one year, and is dam of Woodhouse's Bhs, senior herd sire at Avondale.

Her other Brothers are now offering three sons of King Urmia, born Feb. 1915. One is from a 16-lb. two-year-old daughter of King Pontiac Artis Canada; the others from 23-lb. dams. All are light in color and of her blocky type, well grown and in good condition. They are not offering any females at present, but will have over 20 head in the Brookville District Breeders' Sale to be held about the middle of May, 1916, on the day following A. G. Hardy's sale at Arundale Farm. In the assignment will be a number of daughters of King Urmia. It is hoped to have some of them tested by time. They will also put in half a dozen grand daughters of King of the Pontiacs. The balance will consist of young B. O. M. cows.

THE MONTREAL AYRSHIRE SALE.

AYRSHIRE breeders everywhere who are in need of new blood in their herds, should take advantage of the great premium sale of Ayrshires to be held at Montreal on Thursday, December 24th. Altogether 30 head of Ayrshires will be sold from the famous herds of the Hon. Senator Ovesen, Montebello, Que., W. F. Kay, Phillippsburg, Que., and the Vandrell Herd and Stock Farm Ltd., Vandrell Stn., Que. The 30 head of Ayrshires offered will all be submitted to the tuberculin test previous to the sale, and a certificate of character produced. Parties unable to attend the sale may send instructions to buy with funds to W. F. Stephen, secretary, Canadian Ayrshire Breeders' Association, Huntingdon, Que. There will be a wide range of choices, including everything from officially selected young stock to particularly good heifers from such noted sires as Stonehouse Heiberg, Auchenbraun Ben Foam and Auchenbraun Pride. Animals with breeding such as this require no further introduction to fanciers of the great stock mills. Catalogues may be had on application to A. R. D. Holden, Room 866 McGill Bldg., Montreal, Que. Be sure and get one.

Get Yearly Record Backing

Build for the Future and the Best Interests of Your Herd. We can offer you the widest choice of 20,000 lb. cows of any herd in Canada.

YES—We have the Canadian champion butter cow in semi-official test. As an example of the females in our herd five cows entered in the semi-official test last year have made records all over 20,000 lbs. milk.

YES—Our herd sire's combined semi-official record is 49,897.7, including his dam's record as a 3-year-old.



Rosy Bonerges.

This gives you an idea of the type of our producers. Rosy is another of 5 cows in our herd that have made over 20,000 lbs. in the past year. Back up your herd with this kind of blood.

YES—His two nearest dams have a higher combined record than any other bull in Canada.

YES—His dam and sire's dam are both gr.-daughters of De Kol 2nd, the greatest transmitting cow of the breed.

NO—We have no sons of 20,000-lb. cows. BUT we have gr.-sons and gr.-daughters for sale just now, also couple of gr.-daughters of Pontiac Komdyke to offer, ones that will make big R.O.P. records when they develop.

Buy the best and breed better. We just have a few. So don't delay. Write to-day.

Rosebud Maid (10485)

Rosebud has been under test for 9 months and has 20,000 lbs. milk to her credit in that time. She has both the "form" and the "perform."

W. A. McELROY, Hillside Farm, CHESTERTVILLE, ONT.

JOINT AYRSHIRE BREEDERS' SALE

To be held at 10 a.m.,
THURSDAY, DECEMBER 16, 1915
 At the Canadian Pacific East End Stock Yards, Montreal.

ABOUT 80 Head of Ayrshire

from the celebrated herd of the Hon. Senator Owens, Montebello, Que., W. F. K. P., Phillipsburg, Que., and the Vaudreuil Dairy and Stock Farm, Limited, Vaudreuil Station, Que., will be offered for sale at auction.

Every animal will be registered in the Canadian National Records, and transfer and certificate of health will be delivered to each purchaser.

ANDREW PHILIPS, Auctioneer

Catalogue may be had from the Secretary.

A. E. D. HOLDEN, Room 805 McGill Building, 211 McGill St., Montreal

AYRSHIRE BULLS

We have an exceptionally choice bunch of bulls of all ages up to 15 months old, to offer now. Four are old enough for service, and are sired by a maternal brother to the champion R. O. P. Two year old record 4523 lbs. of milk and 520 lbs. of fat), and from dams by Duke of Ayr, a son of the ex-champion cow Princess of Tangleywood record, 16396 lbs. of milk and 625 lbs. of fat), and all sires from cows of excellent families of 1000 lbs. of P. on both dams and sires from cows of excellent families of over 2000 lbs. of milk and two gilt edge bulls of sides. Will sell a particularly good pair of heifers, and two gilt edge bulls of the same breeding as above at the Tillsonburg sale on Dec. 30th. Secure a catalogue for description. **W. W. BALLANTYNE & SON, B. B. No. 3, Stratford, Ont.**

LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, sired by Auchentria (Sea Foam) (Imp.) 35758 (88965), Grand Champion at both Quebec and Sherbrooke, from Record of Performance Dams. Write for catalogue.

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AYRSHIRES FROM R. O. P. DAMS

We are offering 2 fine young bull calves, from dams with good R. O. P. back. Write me early if you need the best in Ayrshire blood.
W. C. TULLY, Beaver Meadow Farm, ATHELSTAN, QUE.

RIVERSIDE HOLSTEINS

For Sale, Chocoo Young Bolls, sired by King Johnson Pontiac Korynska, a grand son of Pontiac Korynska, and a brother of Pontiac Lady Korynska, 3425 butter on in 7 days, 165.92 lbs. in 30 days—cord when made. Also females bred to "Kings". **J. W. RICHARDSON** CALEDONIA, ONT.

HOLSTEINS

19 Bulls, 50 Females. One yearling bull (a dandy), by King Segis Pontiac Impudens, whose first tested daughter holds the 7, 14, 30 and 60 day milk records for Canada, for a senior 2-year-old. His dam is a Grand-daughter of King Segis. Another by a son of Pontiac Korynska for a 3 lb. dam. **D. M. HOLTRY** B. B. 4, PORT PERRY, ONT.

Lakeview Stock Farm, Bronte, Ont.

Breeders of high-testing Holstein-Friesian cattle, offer for sale a foundation herd, consisting of 1 male and 3 females, all bred in the purple and bred by officially tested dams. Terms to suit purchaser. **E. F. OSIER, Proprietor.** T. A. DAWSON, Manager

KORNGOLD IMPROVED ENGLISH YORKSHIRES

Borns and buds of breeding age. A choice lot of York Pigs, just ready to wash. **F. J. McCALPIN, Korngold Stock Farm, GANANOQUE, ONT.**

SUMMER HILL OXFORDS

Flock established many years ago by the late Peter Arkell. Names and sires for sale in any quantity, all recorded. Strictly no grades handled except by order. **PETER ARKELL & CO., Proprietors, TERREBATE, ONT.** P. O. Box 65 and C. P. Station.

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GRAT PRIZES FOR AYRSHIRES.

DITTOR, Farm and Dairy—Thinking that it would be of interest to many Canadian Ayrshire breeders, I enclose a few notes regarding the great sale of Ayrshire cattle held by Mr. W. P. Schank of Ayr, N. Y., recently. The information is taken from "The Field," of New York. One hundred and two head of Ayrshires of all ages were sold for an average of \$25 a head.

A matter of particular interest to Canadian breeders was the wonderful price obtained for the Canadian-bred cow, Jean Armour, and her descendants. This cow, Jean Armour, now in her 14th year, but still looking as fresh as an eight-year old, sold for \$4,000. This is claimed to be a world's record price over all breeds for a cow of that age. She has recently completed another year's test, making a record of 15,282 lbs. of milk, and 716 lbs. of fat. This is also claimed to be a world's record for a cow in her 14th year. She was in calf during the last five months of the test. One daughter, Jean Armour 2nd, sold for \$500, and her other daughter, Jean Armour 3rd, sold for \$3,500. This daughter is the world's champion two-year-old cow of the breed. Her record is 14,367 lbs. of milk and 599 lbs. of fat.

Jean Armour 4th, a yearling son of the old cow, went to the Brantford Farms at \$1,000. Lotus Jean Armour, yearling daughter of Jean Armour 3rd, brought \$500. Jean Armour of Ayr, a 7-month-old daughter of Jean Armour 2nd, brought \$350.

In view of the fact that foot and mouth disease had broken out in Ayrshire within 90 miles of Ayr, just previous to the sale, the prices received were considered very satisfactory.—John McKee, Norwich, Ont.

THE THORN AYRSHIRE SALE.

DITTOR, Farm and Dairy: Prices realized were not quite as high as I expected, the stock being brought out in first class condition. Considering the conditions at the present time and the way the sale was conducted, however, the prices were quite satisfactory as every animal that was offered was sold to the highest bidder. I did not allow any man to do any by-bidding or bidding in attendance. I have been so disappointed at attendance on some sales where animals have been bid up to a high figure and never left the premises, that I was determined to set an example for fair and square dealing, and the general remark was, "If you have another sale, I will go to it with you." The sale was held under a tent 30 x 40 feet, with elevated platform for animals to stand on. A substantial lunch was served before the sale began. Mr. John McKee, clerk of sale, in a very able address, set out the merits of the Ayrshire cow, which was appreciated by all present.—Wm. Thorn, Lyndoch, Ont.

Females
 Hebeousa Flirt of Trout Inn, 6 yrs. J. H. Russell, Stratfordville, \$25; Flirt's Lady of Trout Inn, 4 yrs. C. S. Osmond, Milton, \$175; Lensescock Grace Darling, 11 yrs. Strath Lynn Farm, Simcoe, \$15; Heather Belle of Trout Inn, 3 yrs. C. S. Osmond, \$125; Trout Inn Tany, 2 yrs. C. S. Osmond, \$100; Ferns of B. B. Stillwell, Eden, \$165; White Rose of Trout Inn, 4 yrs. R. J. Campbell, Delhi, \$125; Lady White of Trout Inn, 3 yrs. Strath Lynn Farms, \$125.50; Lady G. 7 yrs. C. S. Osmond, \$80; Trout Inn Moon Ewes, 3 yrs. Strath Lynn Farms, \$105; Trout Inn Queen Jessie, 3 yrs. R. J. Campbell, Delhi, \$80; Trout Inn Lillian, 1 yr. C. S. Osmond, \$75.00; White Bloss, 5 yrs. W. H. Green, Brantford, \$125.50; Trout Inn Lady Glory, 3 yrs. C. S. Osmond, \$92; Lady Belle of Maple Bow, 3 yrs. F. Kennedy, Tillsonburg, \$75; Princess Royal, 7 yrs. R. F. Cook, Deseronto, \$75; Trout Inn Lady Snow, 3 yrs. C. S. Osmond, \$97.50; Maple Bow Snowflake, 1 yr. F. Kennedy, \$52; Trout Inn Sarah, 3 yrs. C. S. Osmond, \$65; Trout Inn Hopeful Bloss, 5 mos. R. W. Smith, Hagersville, \$75; Trout Inn Belle of Rosmond, \$75; Trout Inn Queen, \$85; Trout Inn Flirt, 1 yr. Strath Lynn Farms, \$125; White Lady, 1 yr. C. S. Osmond, \$37.50; Trout Inn Blue Belle, 6 mos. R. W. Smith, \$45; Trout Inn Jean, 3 mos. Moly Hotkins, Stratfordville, \$90; Trout Inn Leading Lady, 1 mo. R. W. Smith, \$60; Ex. at Eur Lead, 1 yr. C. S. Osmond, \$75; Knowles, Simcoe, \$42.50; Trout Inn Empress, 1 yr. Strath Lynn Farms, \$80; Trout Inn Queen Elizabeth, 1 yr. C. S. Osmond, \$60; Trout Inn Queen Elena, 12 mos., Lether Pinegar, Dorchester Station, \$77.47.

Males
 Cromwells Boy of Maple 4 yrs. Strath Lynn Farms, \$150; Otterhill Prince, 1 yr. Lether Pinegar, Dorchester Station, \$55; Trout Inn Breeze, \$75; Trout Inn calf, Delbert, \$75; Trout Inn \$47.50; Trout Inn Borden calf, R. H. Hankinson, Ashter, \$45; Trout Inn King Emmanuel, Bear Linn, Lyndoch, \$40; Carriock Boomer, calf, C. S. Osmond, \$35; Trout Inn Crowsburn Boy, 1 month, A. Hain, Tillsonburg, \$25; Trout Inn King Albert, calf, L. Pinegar, \$25.50; Trout Inn Royal Salute, young son of Wilson, Stratford, \$27.50; Richard Laddie, 1 month, C. S. Osmond, \$25.



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REGISTERED HOLSTEINS F. SALE

20 Head. Females from 5 months old and upwards, also 5 1/2-year-old Stock Bull and 2 Bull Calves. Jesse Looker, R. E., Mitchell, Ont.

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Cows, Heifers and Bull Calves at attractive prices. The Montreal Dairy Herd, Box 99, Drumbo, Ont.

YOUNG HOLSTEIN BULLS

Sired by the son of a 30.06 lb. cow (in days) from tested dams and after seasonal test.
E. B. BROCK, B. B. 5, SIMCOE, ONT.

FOR SALE

Yearling bull from a heifer with a 9.3 lb. butter in 30 days R.O.M., as a 2 1/2-yr.-old; 3 Bulling sired a year and one 1 mo. old. Three all from a cow with high official records and priced very reasonable for quick sale.
W. J. BAILEY, Lyndenwood Farm JARVIS, ONT.

Lyndale Holsteins

Now offering three sons of King Trout Inn, 30 months old, all light in color, low set blocky fellows and individually good. One is from a 15-lb. 2-year-old daughter of "King of the King of Ayr Canada." The others have 23-lb. records.
BROWN BROS., LYN, ONT.

Trough Fed Figs Made Same Gain, But Ate 160 Pounds More Feed

Mr. William Smith, of Trowbridge, who is the owner of a hog motor, has been conducting experiments during the past few weeks to learn the advantages of the hog motor in feeding pigs.

After becoming acquainted with the best way of handling the machine, two lots of hogs of similar grade were put on test and the weighing done at two p.m. on the same day of each week. On November 17th two lots of seven hogs were weighed and after feeding the one lot by the hog motor and the other with the trough, they were again put on the scales on November 24th, when it was found the seven motor fed hogs had consumed 265 pounds of hays whereas the other lot, after feeding the one lot by the hog motor and the other with the trough, they were again put on the scales on November 24th, when it was found the seven motor fed hogs had consumed 426 pounds of ground grain in the same mixture, or exactly 160 pounds more than the motor fed hogs consumed.

As to gain in weight, this was found to be the same in each case—almost two pounds per pig per day. Thus it will be seen that Mr. Smith saved almost \$3 a week for feed by the hog motor method, by saving nothing of time lost, taking grain to the chopper, and paying six cents per hundred for grinding.—Adv.

Where

Opportunity Knocks And Prosperity Answers

THE great clay areas of Northern Ontario offer farming opportunities that a few years ago old Ontario never dreamed of. Thousands of acres of the finest of land have been opened for farmers in the last few years. These virgin homesteads stand ready to be taken up by our young men of Ontario and the Maritime Provinces, or older farmers who are living on rented farms. Here is opportunity for these men to own homes for themselves in what promises to be in a few years, one of the most productive sections of Ontario.

ONLY SMALL CAPITAL IS REQUIRED TO make a start in Northern Ontario. Most of the farms are covered with the finest of pulp timber, for which there is ready sale. So that in taking out pulp wood, ties, etc., in the Winter season, the homesteader is actually clearing up his farm and at the same time earning funds to carry him along till his land begins to produce. Our illustration herewith shows one of these new homesteads after four or five years have been put upon it. The opportunity to own such a home is open to thousands of farmers over old Ontario who are to-day living on rented farms or with their families are working by the year in some of the older districts.



Stock is Produced Cheaply on the Homestead.

THE FERTILITY OF THE SOIL IN NORTHERN ONTARIO is well known. Some of the finest grains shown at the Toronto Exhibition this year came from the Northern districts. Wheat, oats, peas, barley, give tremendous yield. Clovers and timothy are at their best. In fact one of the things that struck a recent visitor in Northern Ontario was the fact that alsike clover grows almost as wild as a weed. This insures plenty of pasturage for the farmers' stock during the Summer and abundance of feed for the Winter. You can own one of these productive farms

In the Great Clay Belt of Northern Ontario



Harvesting Barley in Northern Ontario.

PRACTICALLY every product that the settler can produce finds a ready market. Hay and grain are required for the teams in the mines and lumber camps. Butter, vegetables, etc., are needed in the growing towns. They are commanding a high price with cash returns. After the first year, practically every progressive settler can produce a living for himself and his family off the few acres that he has cleared. The lower illustration indicates the heavy yield of grain that the new fertile soil will produce from Haleybury to Cochrane and then both east and west on the Grand Trunk Pacific. These thousands upon thousands of acres are ready to produce in abundance for the incoming settler.

THESE new homes in the great Northland of Ontario are only 300 or 400 miles north of the city of Toronto. If you are ambitious for a home of your own, one of them can be yours for the asking and the work of doing settler's duty.

For Settler's Rates and Further Information write to

H. A. Macdonell

Director of Colonization, Toronto, Ontario

HON. JAS. S. DUFF W. BERT ROADHOUSE
Minister of Agriculture Deputy Minister of Agriculture
Parliament Buildings, Toronto

A Day with the Pinehurst Jerseys

(Continued from page 6).

run on a four-year rotation of corn, oats or barley seeded down and two years of hay. There is abundance of rough pasture and all of the good land can be devoted to crop production. There is manure enough to cover land every time it is broken and as a result, heavy crops are raised in almost any year. Ten to 12 acres are in corn and this crop finds lodgment in two silos 14 x 30 feet. "We built the first of these silos ourselves, 15 years ago, bringing the material right from the mill pond," was informed. "The second one we built ourselves five years ago at a cost of \$55."

The present system of cropping, however, is not the ideal toward which the Rutiers are working. All three members of the firm are great admirers of "Hoard's Dairyman," and it is their object eventually to follow the same rotation on their farm as is followed on the Hoard's Dairyman farm of Wisconsin, namely, a five-year rotation of corn, grain and three tions, however, it was first necessary to discover how to grow alfalfa in a district where that crop had previously been a failure. The first field was seeded 10 years ago. It went through the first winter without loss and gave two or three good crops the following summer. The following winter every plant was killed. The field was plowed, put into roots and then seeded to alfalfa again. Part was winter killed, but the balance is still there.

Another small field was seeded to alfalfa, and has been cropped four years, but is now thick in quick and is ready to be broken up. It will be noticed that none of these first experiments were wholly successful. The first success was achieved on a two and one-half acre field to the east of the barn. It was first seeded to alfalfa as the previous pieces had been without either liming or inoculation. A poor crop was cut the next year so the field was broken up, planted to corn and then seeded to alfalfa. This time the soil first received an application of 1,000 lbs. of lime to the acre. The seed was inoculated, and the variety selected was Grimm's, the hardest known. All conditions seemed to be right. A perfect stand was secured, which was killed slightly by the smothering effect of a too heavy crop of barley. Since then, absolutely none of it has been winter killed, and when I was in the field just before the first cutting last spring, the crop promised to be an unusually heavy one, as heavy in fact as one ever sees in the best alfalfa producing regions of Ontario.

Another small field has been seeded to alfalfa, the soil being limed but the seed not inoculated. The first year the crop was poor. In the fall it was too dressed and this year at the time of my visit, the alfalfa stood waist high with an almost perfect stand. It is just possible that the top dressing did more than sunoly fertility. It may have inoculated the soil as well. Now that they have found the conditions under which alfalfa thrives in their district, the Rutiers plan to quickly bring their farm under a corn-alfalfa rotation.

The Feeding of the Herd
The cropping systems mentioned provide all the rough feed for the herd; and what better basis could one have than corn ensilage, some roots and alfalfa and clover hay? In addition to good roughage, however, the Rutiers feed heavily to grain. A cow testing five per cent butter-fat, gets one pound of grain to each two and one-half pounds of milk. If the test is not so high, the amount of grain is reduced. The ration is also regulat-

FREE! FREE!

TO FARMERS and FARMERS' SONS

Short Winter Courses at the Ontario Agricultural College, Guelph

The only expense is board at reasonable rates and reduced railway fare.

STOCK AND SEED JUDGING

January 11th to January 22nd. Judging Horses, Sheep, Cattle, and Swine, Slaughter tests, lectures on Breeding, Feeding, etc. Judging grains and seed of other farm crops; selection, germination, purity, etc.

FRUIT GROWING

January 25th to February 5th. Varieties, Nursery Stock, Spraying, Fertilizers, Pruning, Marketing, etc. Classes in Apple Packing.

POULTRY RAISING

January 11th to February 5th. Poultry Houses, Breeding and Mating, Judging, Feeding, Winter Eggs, Fattening, Dressing, Marketing, etc.

DAIRYING

Three months' Course in Factory and Farm Dairying—January 3rd to March 24th. Summer Course in Butter and Cheese Making. Courses in Cow Testing and Ice Cream Making.

BEE-KEEPING

January 11th to January 22nd. Care and Management, Swarming, Queen Rearing, Diseases and Treatment. Quality of Honey, Marketing, etc.

Short Course Calendar mailed on request.

G. C. CREELMAN, President

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Big Money in Trapping about, and you can trap furs—we want you to trap furs. We will pay you \$100.00 to increase your business. Fursten will pay you \$100.00 to increase your business. Fursten will pay you \$100.00 to increase your business.

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Christmas Appeal

FOR
The Hospital for Sick Children
COLLEGE ST., TORONTO.

Dear Mr. Editor:—
Thanks for your kindness in allowing me the privilege of appealing at this Christmas season on behalf of the Hospital for Sick Children, Toronto.

In the 40 years of the Hospital's existence there have been treated within its walls 26,108 children as in-patients; 23,158 as out-patients; a grand total of 257,876 in- and out-patients. The Hospital for Sick Children gives a province-wide service, for little Ontario have sought its aid. Last year 499 patients were admitted from 232 places outside the city of Toronto. In 1914 there were 354 from 210 places.

Of the 2,838 in-patients last year 1,771 were medical cases and 1,067 surgical. In the orthopedic department of the 2,838 in-patients, 554 were treated for deformities, 21 Pott's disease of the spine, 10 lateral curvature of the spine, 10 bow-legs, 57 club-foot, 17 dislocation of hip, 42 tubercular disease of knee, hip, ankle, wrist and elbow; 78 infantile paralysis, 3 wry neck, and 21 miscellaneous.

Our battle is never-ending—is one that will continue while the world lasts, for it is the fight between the armies of life and death, to save the child life, the sick little ones, sons and daughters of the fathers and mothers still in this home-land province.

The Hospital is beating back disease and death, the enemies that assail the lives of little children as the British Empire is beating back Germany, Austria and Turkey. The enemies that assail the life of liberty.

So we appeal to the generous people of Ontario not to forget those so near and dear to us, who lie in the beds and cots of this great charity. Will they people at large, as we old respond to our call? Will they remember that every year it is a war year for the Hospital, every day a day battle, and that the Hospital needs money, not for its own sake, but for the children's sake?

The Hospital has waged its war for forty years. The people of Toronto and Ontario have been its friend, and this year of all years it requires help. Surely you will give to a charity that cares for every sick child in Ontario, for only as your money reaches the Hospital can the Hospital's mercy reach the children.

Every dollar is a link of kindness in the chain of mercy that joins the money in your pocket to the miseries of some child's life, some mother's heart.

Remember that Christmas calls you to open the purse of your kindness to the Hospital that the Hospital may open the heart of its help to the children.

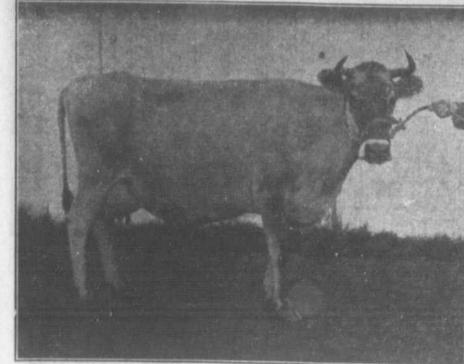
Will you send a dollar, or more if you can, to Douglas Davidson, Secretary-Treasurer, or

J. ROSS ROBERTSON,
Chairman of the Board of Trustees,
Toronto.

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She Far Exceeded the Requirements for Record of Performance Admission.

"Anna" stood higher than any other British Columbia Jersey in the R.O.P. tests of 1913, and won the cup donated by the B. C. Dairymen's Association. She exceeded the required production by 273.5 lbs. of milk and 246.85 lb. of fat. Owned by Grimsmer Bros., Newber Island, B. C. Cut courtesy B. C. Dairymen's Association

ed according to the physical condition of the cows.

"We cannot get milk without corn meal," said Percy Ruitter. "Cottonseed, oil cake, bran and barley are also fed. We have fed from one to six pounds of corn meal a day. We feed a little bran and corn meal and sometimes a little cottonseed throughout the summer. When ready to dry off, we take away the grain feed, but when dry again we start to feed a reasonable ration to get the cows in good condition. We like to have them dry six weeks if possible, but usually they will not dry up so long."

An Ideal Farm Home

So much for the practical end of the farm. The Ruitter home is deserving of mention. It stands for comfort, convenience and permanence, especially the latter. Its foundations are on a ledge of slate; it is built substantially of stone; hence its permanence. The big, wide verandah, shaded by tall trees in front, seem to speak of comfort on the hot June day that I visited them. Inside of the house I found every modern convenience that goes with an up-to-date running water system. In the laundry room of the basement, I found the running water plant, a gasoline engine and a big pneumatic tank. The gasoline engine was also regulated to run the washing machine and the wringer, and just that morning Mrs. Andrew Ruitter informed me that she had put through a big washing with very little physical effort.

The revenue of this farm I cannot give in full. I learned that last year the receipts for cream alone from a herd of around 90 cows, amounted to \$2,556. This cream is shipped to Montreal at 4c a lb. butter-fat in winter and 3c in summer. To this we must add the receipts from the sale of stock, from pigs of which about 40 are turned off each year and the by no means negligible returns from 100 Silver Wyandotte pullets.

This sketch would be by no means complete without some reference to the personnel of the farm. Charles Ruitter is still alive and active. "The first out in the morning, the last in at night." In all of the active work of the farm, he is well seconded by his son Andrew, a young man fairly remaining over with energy and enthusiasm. He it was who took me through the buildings and out to the back pasture to see the Jerseys. And then there is Percy Ruitter. Although burdened with physical infirmities that have made of him a well nigh

helpless cripple, this third member of the firm must share equally with his father and brother, the credit for establishing one of the best Jersey herds in the province of Quebec. The very infirmities which have precluded him from active participation in the work of the farm have given him greater opportunities for study and thoughtful planning than fall to the most of us, thus making him in reality the directing genius of the firm. We anticipate that Pinehurst Jerseys in the hands of these three able stockmen, will occupy an increasingly prominent position in the Canadian Jersey world.

Age of Calving

L. Hamann, Farr, Hastings Co., Ont.
DIFFERENT opinions are held as to the most suitable age for a heifer to produce her first calf, but there are many points to be considered in dealing with the matter. A great deal, for instance depends on the way she has been reared, whether she has made good growth or otherwise. The breed of the animal also calls for consideration because some breeds mature earlier than others.

Some breeders maintain that a heifer shouldn't freshen until she is three years old. They claim that a heifer calving before she is three years old receives a check from which she does not recover. On the other hand there are advocates of heifers freshening at two years old on the theory that early freshing has a tendency to develop greater milking propensities.

In the writers opinion there can be no fixed time for a heifer freshening; it is more a matter of individuality. Every practical stockman knows that in raising a bunch of calves, rarely ever do they all make an even growth and some mature earlier than others and here it is that the discretion of the breeder is needed most. In my opinion, provided a heifer has made good growth she should be due to freshen when she is thirty months old and with proper care will develop into as good a cow as if left to freshen at three years. Besides, she is, making a money return, six months earlier, which is a point worthy of consideration. If am no advocate of making money at the expense of the animal's growth; it is a foolish policy and calving at a premature age should not be encouraged.

It is not a good plan to raise the first calf as calves from mature cows are likely to make bigger cows and also have stronger constitutions.



POWER plus Service

Mr. H. TUTTON, of Newber, Ont., writes:

Customers— I have had my Gilson 8 h.p. Engine for eight years and it is equally as good as new now, after doing all our work. In this time, it has run and absolutely no expense for repairs. I would not be without it for anything. In fact this, I also use it on the circular saw, rip saw, cutting box, etc. All these jobs it handles easily, with great strength compared with other makes around me. I am perfectly satisfied with its economy of fuel.

When you buy a "GILSON" Engine, you buy reliable power plus service. We point with pride to the many GILSON Engines, turned out in the early part of our career, that to-day when they left our factory.

The owners of these engines will tell you frankly that their engines have actually cost them less and given them more service than engines which could have been bought at a far lower first cost. Durability—dependability—Service to the Buyer are the watchwords of the GILSON factory.

GILSON Farm Engines Ensilage Cutters Silos, Grinders, etc.

"STANDARD OF THE WORLD"

THE WONDERFUL "GILSON PAPEC"



GUARANTEED to cut and divide more ensilage with the same power than any other Blower Cutter.

Customers— My NINE GILSON PAPEC Blower Cutters is so superior to other blower that it cannot be placed in the same class. For ease of feeding, and the amount of stuff it will put through with my 8 h.p. Gilson Engine, I cannot say enough. I never yet been able to plug the blower pipe. GEORGE L. BYRLE, MARVEL, Ont.

THE HYLO SILO

The Mortgage Lifter

SWEET FRESH ENSILAGE down to the last forkful. The Hylo Silo is perfectly air-tight. No frost or spoiled ensilage around the walls. Convenient and perfect fitting doors, that you can adjust without hammer or wrench. Made of superior material. Long Leaf Yellow Pine. Built to last a lifetime. Stands rigid when emptied.



Customers— I received my 30 ft. Hylo Silo in a condition, and so well satisfied with it that I ordered you to put it up in twelve hours, and I certainly was surprised at how readily it went together. CHAS. RICHMOND, Guelph, Ont.

Every man who gets a GILSON product secures for himself SAFETY, SERVICE and SATISFACTION. Write for Catalogues.

THE GILSON MFG. CO., Limited - 87 York St., GUELPH, Ont.

Keep More Cows — Less Hired Help

ONE double or two-cow unit takes care of 20 to 30 cows per hour. One man can operate two double units. Why use your dairy profits paying out wages?

EMPIRE MILKER

milks naturally, is safe, sanitary and economical. It is operated by natural air pressure and is easier on the cows than hand milking. No dirt, germs or stable air comes in contact with milk. Even nervous cows stand still and in many instances give more milk than before.

You can keep more cows, less hired help and make more money by owning the Empire Mechanical Milker. Write for description and pictures showing Empire Milker, and Empire Cream Separator in modern designs. Get our offers on EMPIRE "Silos-Silos" Gasoline Engines. THE EMPIRE CREAM SEPARATOR CO., OF CANADA, LIMITED Dept. E Toronto and Winnipeg

Selling Seeds for 50 Years

TO retain the confidence of customers for 50 years means giving them good service, good values and a good article. For poor Seed is the foundation for a poorer crop. Farmers all over Ontario KNOW that they can rely on getting from us the best qualities and varieties of seeds at honest prices. Select your seeds early. We will be pleased to have your best for

Strength in seeds is becoming more and more appreciated. Strong seeds in a larger yield of better quality.

Our 1916 Catalogue

IN wishing you every prosperity for 1916, we again ask the business farmers for their seed requirements on our part of half a century. We express our appreciation to our customers by the specially attractive prices in our "GOLDEN JUBILEE CATALOGUE." There is a free copy for you. If you believe in good, clean, seed, let us have your address for one to-night.

Strength and vitality in seed grain are almost as important as freedom from foreign seeds.

Geo. Keith & Sons 128 King St. East Toronto, Ont. Seed Merchants since 1865

PEERLESS PERFECTION



FENCE

Does all you could wish for a poultry fence and more. Built close enough to keep chickens in and strong enough to keep cattle out. Even small chicks cannot get between the close mesh of lateral and vertical wires. The heavy, hard steel top and bottom wires together with intermediate lateral will take care of a curiously backed wren or an unruly animal and spring back into shape immediately. The wires are securely held together at every intersection by the Peerless Lock. This is not a machine or a real fence—built in line with our usual good standard of excellence.

Peerless Perfection Fence

is Strong—Yet Springs as a Bed Spring. Animals can't break through. It is no matter how hard they attempt. It simply can't be broken. It springs back in shape like a bed spring. It is made of heavy low carbon steel protected with oil the top and bottom wires are taken on an all the strength and toughness left in. Will not rust. Top and bottom wires are

Peerless Ornamental Fencing

is beautiful. Will not sag. Requires less posts than ordinary fence. Identical construction. Complete two great products. It handles your problem by giving them that appearance, and it provides them by furnishing right, effective resistance against rust, rot, etc. We make gates to match, that are equally attractive.

The Fence that it never needs repair. It is the cheapest fence to erect, because, owing to its exceptional strength and durability, it lasts for years. It is made of heavy low carbon steel protected with oil the top and bottom wires are taken on an all the strength and toughness left in. Will not rust. Top and bottom wires are

Send for Literature and address of nearest agent. We also make a complete line of farm and ornamental fencing. Agents wanted in unorganized territory. THE BANWELL-HOXIE WIRE FENCE CO., Ltd., Winnipeg, Man., Hamilton, Ont.



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More Trappers and Fur Collectors send their Raw Furs to us than to any other five houses in Canada. Because they know we pay highest prices, pay mail and express charges, charge no commissions, and treat our shippers right. Clearly, we are the largest in our line in Canada. Ship us to day and we will pay you a fair price. No shipment too small or too large to receive our prompt attention.

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We sell Guns, Rifles, Traps, Animal Bait, Shovel, Gun, Light, Handcuffs, Fishes, Bait, Fishing Tackle and many other articles at lowest prices. CATALOGUE FREE.

John Hallam Limited 315 Hallam Building TORONTO

Development of a Pure Bred Ayrshire Herd

(Continued from page 7.)

started me first to keeping records. An association was formed in connection with our creamery. A man came around and did the testing free. All that the farmer had to buy was a scale and the bottles. I derived infinite benefit from that Cow Testing Association and one thing that I cannot understand is why not one farmer in 20 could be induced to take up the work.

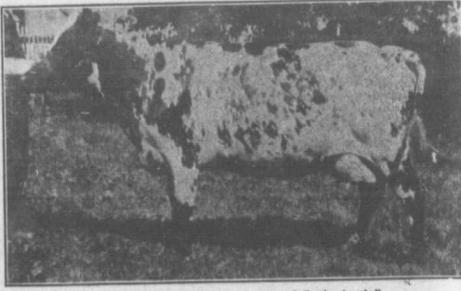
"One feature of this cow testing work is that the more one does of it the more interesting it becomes, until now I have come to the point where weighing and testing the milk is a necessary part of the day's work. This private testing in my herd prepared me to take immediate advantage of the R. O. P., and now every cow of mature age in the herd has qualified and those milking with first calf are now running in the test. One cow in my herd has now qualified as a two-year-old, a three-year-old, a four-year-old and is now running as a mature cow. I would not keep a cow that would not qualify, let her be ever so good in other ways, and I have never had a cow fail to qualify after two trials that stayed in my herd until her year was out."

What the Herd is Doing Mr. Hamill's dairy herd as we saw

cent butter fat, and in one month the Record of Performance inspector tested and found an average production of over five per cent of butter-fat in the milk.

Understanding Mr. Hamill's ideal for his herd, one can understand his choice of a new herd sire when it became necessary to make a purchase recently. After inspecting several herds in Western Ontario, he finally picked a Brookside Free Trader, bred by John McKee, of Norwich. This calf is the son of Stonehouse Free Trader, and the dam of the calf is Sarah, of Brookside, a full sister of Jean Armour, the first cow of the breed to produce 20,000 lbs. of milk in one year. As an individual, the calf has indications of all the capacity and constitution that Mr. Hamill desires. Many would object to him on the grounds that he is altogether too dark in color. Mr. Hamill, however, is not laying his emphasis on the fashionable color. His preference, if he has any, is a good mixture of brown and white, and as his herd is already too white, to meet with his full approval, a dark colored sire is to him all the more desirable.

A clear-cut ideal and strict adherence to it, proves Mr. Hamill to have the true breeding instinct. In his



"One of the Finest is Queen of Springbank."

Notice the business like conformation of this representative cow from the herd of H. C. Hamill, Box Grove, Ont.: the splendid constitution, the evidence of assimilation capacity, and the shapely udder. And with all these utility points Queen has the true type of her breed and is a show cow of merit.

in the stable and on the pasture, is made up of deep-bodied cows with splendid udder development. One of the finest, if not the finest of the lot, is Queen of Springbank. Last year Queen qualified as a four-year-old with 4,971 lbs. of milk and 354 lbs. of fat, made in 275 consecutive days. She is now running again in the test. She freshened on March 20th, and in April produced 1,791 lbs. of milk. In May she did even better, producing 3,883 lbs., and when I visited Mr. Hamill on June 13, she was still producing 6.9 lbs. a day, her milk testing 3.9 per cent.

White Lady, running in the two-year-old class, and due to freshen within a year, was still giving 30 lbs. of milk a day in June, although she calved last fall. Butter Maid of Craigdale, as a two-year-old, produced 11,302 lbs. of milk and 480.33 lbs. of fat, and had an average test of 4.21. She had given about half of the milk which made her great record when she was sold to A. S. Turner & Son. I looked carefully over many other records that Mr. Hamill had on file, and they served to show that he is very near his ideal of a large uniform production for his herd with no sensational producers and no culls. I found that the average test of his herd always averages over four per

insistence on Record of Performance qualifications and in keeping his herd up to type, he has had also to be a weeder. These two factors, the breeding and the weeding, explain in large measure his success in developing a high-class Ayrshire herd. He places almost, if not equal emphasis, on the feeding, and his care extends from the first day the calf is dropped until it is disposed of. In order that he may feed his calves in what he considers the very best way, he sells his cream to the Locust Hill Creamery instead of shipping milk to Toronto as so many of his neighbors are doing. "I wouldn't know how to raise calves without this skim-milk," he explained as he carried two big buckets of it to the calf pens. "This is what makes big cattle. Perhaps I could ship milk and make a little more money, and I may yet do so, but if I ship milk I will also ship cream in order that there may be some skim-milk at home for the calves."

Feeding Methods

Later when I asked for a fuller account of his feeding methods, Mr. Hamill described them as follows: "For the first two to four weeks the calves get new milk. The quantity depends on the constitution of the calf. If they are very thrifty, I start to change to skim-milk in two weeks

In rare milk is given... rule is three... very part... and would... of giving... at each feed... a day, giving... at a feeding... times a day... can see... feeding... "As soon... it gets it... usually it... ground g... grain that... sirable p... it is not... cake. For... clover they... mangels a... emphasizing... This... made when... as in my c... "We fee... barn all t... the cows... calves are... thrifty and... here too... cows come... give from... milk from... they fresh... No... "During... growth, my... from that... bred stock... to yearling... growth on



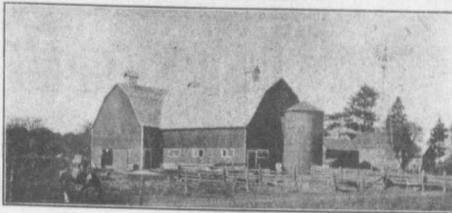
In rare instances, however, whole milk is given up to six weeks. My rule is three weeks to a month. I am very particular about over-feeding, and would emphasize the importance of giving the same quantity of milk at each feeding. Usually I feed twice a day, giving not over 10 lbs. of milk at a feeding. When milking three times a day in R. O. P., however, I feed the calf three times a day, but can see no advantage in the extra feeding.

"As soon as the calf can eat grain, it gets it. I prefer whole oats, but usually it is more convenient to feed ground grain. In the mixture of grain that I grow, there is a considerable portion of flax seed. Hence it is not necessary to feed much oil cake. For roughage they get what clover they will eat up clean and also mangels and ensilage. Again let me emphasize the danger of over-feeding. This is the greatest mistake made where a variety of feeds is given as in my case.

"We feed the spring calves in the barn all summer. I prefer to have the cows freshen in the fall as fall calves are the easiest to keep thrifty and growing. I might say here too that I prefer to have the cows come in in the fall as they will give from 1,000 to 3,000 lbs. more milk in the lactation period than did they freshen in the spring.

No Grain to Yearlings

"During the yearling stage of growth, my method of feeding differs from that of most breeders of pure-bred stock,—I feed absolutely no chop to yearling heifers. I want to see growth on them and at the same time



A Well Improved Small Farm in Dundas Co., Ont.
These are the buildings on the 50-acre farm of Mr. Archie Black. The farm has wintered as high as 25 head of cattle; good testimony to its productiveness. —Photo by an Editor of Farm and Dairy

get them accustomed to rough feed. Before freshening, however, I want every two-year-old in good flesh. Some I find will be in good flesh without chop, but if they are thin and need chop, they get it. The same applies to the cow, no matter at what age she is freshening. I must have them in good flesh at that time. I feed the cows full rations right up to the time of freshening. I have found that if they freshen and have a tendency to give a big flow of milk, they will weaken themselves till they cannot take sufficient chop, and that cow will be a wreck for a year anyway.

"We feed chop only twice a day. Our order of feeding is about as follows: In the morning the cows get corn ensilage with ground grain on top. Then we milk, and after milking we feed hay. After breakfast we fill

the manger with straw and what is not eaten is used for bedding. Roots are fed at noon, and the feeding at night is identical with the feeding in the morning.

"The first week after a cow freshens we do not feed any chop. After that we increase the grain ration gradually until we are giving up to one pound of chop to three pounds of milk. This chop is from our own home-grown seeding mixture of about two bushels of oats, one-half bushel of barley and six pounds of flax. Occasionally, of course, we find that it would not be profitable to feed this much chop, and the quantity is fed only in winter to cows that freshen in the fall. We have an abundance of pasture, and as long as the fresh cows are on pasture, they do not require grain feeding when they are given all the ensilage they will

eat, and later on green cut corn. When the cows are dry in the fall, too, on our good pastures with corn as a supplement, they require little, if any, grain. This is another advantage of having the cows freshen in the fall. They can be carried over the dry period very cheaply."

Ensilage the Best Feed

One of the features of the Hamill buildings is the big cement silo. Mr. Hamill expressed himself on ensilage feeding as follows: "If you want my candid opinion, there is no such way to get milk as by feeding ensilage from the silo. My cows go down in milk when they go from the stable to good spring pasture. This slackening in flow may be only temporary with those fresh in milk, but if well on in their lactation period, they do not come back again. As soon as I increase my herd I plan to have another silo for summer use."

"I grow sweet corn for fall feeding," added Mr. Hamill. "Evergreen sweet is the variety preferred as it remains green far longer than any other. I drive into the pasture with a load and throw it off as the horses walk along. The cows eat it up, and there is absolutely no waste. This is the advantage of sweet corn for fall feeding,—the cows like it so well that they eat everything, including the stalk."

Mr. Hamill has done well as a breeder of Ayrshires. He has no secrets of the breeding art to impart to young men in the business or to those who have been less successful than himself. He has followed along the well trodden road of breed, feed, and that road has led him well on the way

Protection!

The fire-fighting appliances on the average farm are insufficient to cope with even a small fire. Why not prevent all risk of fire, and at the same time reduce your Insurance cost?

PEDLAR'S "George" SHINGLE

is your best protection. Made of best quality galvanized steel. Proof against Fire, Lightning and Tempest. "Pedlarize" your Barns and other buildings NOW.

PEDLAR'S Galvanized Corrugated Iron SIDING

may be applied to the sides of the building without wood sheathing boards, making a permanent, fireproof structure of great strength and rigidity. Write for booklet giving full particulars. Use the coupon please.

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I AM much interested in your ad, on "Protection." Please send me your Free Booklet, "The Right Roof."

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(The underswriting base, by "G. D.")

ENGINE SPARKS CAUSE DESTRUCTION ON FARM

BARN AND CHOPS BURNED—SIMILAR DISASTER FROM LIGHTNING STROKE.

(Special Despatch to The Globe.)
Brighton, Ont. 8.—While filling a silo on the Isaac Richards farm, north of this village, sparks from the engine set fire to the barn, and all the farm buildings, except the house, were either partially or totally destroyed. The loss will exceed \$3,000.

Electrical Cause This Time.
Galt, Ont. 8.—During last night's electrical storm a large barn on the farm of Daniel and Adam Y. Little, three miles from Galt, on the Credit River, was struck by lightning and burned. The man's crop of wheat and oats, also a large quantity of hay, was consumed. The loss will exceed \$2,500, mostly covered by insurance in the Ayr Farmers' Mutual Fire Insurance Company.

to the ownership of a splendid York county farm. He has acquired a name that assures him a market for all his surplus stock, and he feels that he is just beginning now to really accomplish something. In the past Mr. Hamill has been hampered, as have so many other breeders, by lack of capital. For years almost his whole effort was taken up in a fight to keep a foothold on the weedy, run-down farm he had purchased with a payment down of only a small portion of the selling price. But of that we will have more to say later. It is with Mr. Hamill as a successful Ayrshire breeder that this article deals.

FARM MANAGEMENT

Save the Liquid Manure

BEDDING will be more plentiful in the stable this coming winter than for several winters past, and farmers will be in a better position to save the liquid manure through a larger use of absorbents. Those of us who have in the past depended to some extent on commercial fertilizers should find an added inducement to conserve the liquid excrement now that potash salts cannot be imported from Germany—liquid manure is rich in potash. In one ton of the excrement of the horse there is eight pounds of potash in the solid portion and twenty-eight pounds in the liquid; in cow manure, two pounds in the solid and twenty-seven in the liquid, and so on through all other classes of farm stock, except the pig, where the potash content is fairly evenly divided between the solid and the liquid. It is quite conservative to say that 100 times as much potash is wasted on Canadian farms each year through failure to conserve the liquid excrement than was ever imported from Germany.

The first essential to conserving the liquids is a tight floor in the stable. The best laid plank floor is a waste of fertility. The second essential is the use of plenty of absorbent material in the gutters. Where plenty of bedding is supplied the straw will act as an absorbent. Dried peat or muck is good and even shavings will absorb more liquid than straw, and are not objectionable on heavy land. Where absorbents are scarce the Old Country plan of an underground tank for the liquid is a money maker even under our conditions. Liquid manure now has a value that it never had when potash fertilizers were readily available.—F. E. E.

Case of Machinery

C. B. Lawson, Dufferin Co., Ont.

ANOTHER season is nearing an end. All of the most valuable farm machinery has played its part for this year. As we look back over the season, the thing that impresses us most strongly is the comparatively small use that we give to the machines for which we have invested the most money. Our binder, for instance, we have used for only four days, our mower for a similar period and so on, through the whole list. Getting as little use out of these implements as we do, we feel that we must take extra good care of them between seasons in order that their usefulness may be prolonged for many years.

We have an old barn which has been made over into a weather tight implement shed. This old barn is located at a distance from the other buildings and this we consider good as there is then less liability of loss through fire. Before storing our implements for the winter in this old

barn, we go carefully over every part and replace all broken or missing parts. I believe that missing bolts or broken bolts cause more breakage in farm implements than any other form of mismanagement. A bolt can be replaced for a few cents. The damage that its absence may cause when we start up next season would cost several dollars to repair.

We are strong on paint and oil. Rust is not allowed to depreciate the value of our implements. All of the metal parts originally painted in implements are re-painted when necessary. The wooden parts too are kept well painted. In the case of our bright steel parts, we rub them over with grease before storing for the winter. Any grease will do and the cheaper the better. We estimate that our care of machinery saves us an annual expenditure of at least \$100.

The Compost Heap

Frank T. Shutt, Dominion Chemist.
THE compost heap is an economical means of utilizing the large amount of vegetable refuse that is to be found in the fall of the year on every farm and garden—potato

tops, waste straw, and the cleanings of the barnyard, cabbage leaves, the tops of mangels and other root crops, kitchen waste and a hundred other forms of vegetable matter that otherwise would go to waste or be burnt. The compost heap from the manural standpoint ranks very high, and the practice in the fall of clearing up and burning all this material is an exceedingly wasteful one that can only be excused when the refuse is known to contain eggs, spores, seeds, etc., of injurious insects and plants. The farmer's store of manure—always too small for the proper upkeep of his soil in the best condition—finds a supplemental material of great fertilizing value in a well-made compost.

The compost heap may be made where convenience dictates and of any size, according to the amount of material available. It may be made the receptacle of all animal and vegetable refuse of the farm, save in such cases as where the material might disseminate disease. It can be added to at almost any season of the year and requires but little attention. If a deposit of muck or peat, or of pond or

river mud, is on or near the farm, these materials can be largely used to good advantage in the heap. Similarly, old sods, the cleaning of ditches, dead leaves, and scrapings, and loam can be utilized to good effect. The general plan, but one which need not be adhered to too closely, is to build up the heap in alternate layers, of say six inches in depth, of vegetable refuse and manure (less manure may serve if the supply is limited), covering the whole with few inches of good soil or muck when the heap has reached a convenient height, say four to five feet. It is important that the heap should be kept moist in order that the processes of decay may proceed properly, but it should not be so wet as to cause drainage from the heap.

If manure is not available a sprinkling of wood ashes or lime may be made over the layer of muck or other refuse.

Unless it is intended for garden purposes, the heap need not be turned. According to the nature of the materials used and the season of the year, the compost will be ready for use in a few weeks or several months.



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Spliced

J. T. Ruth

YOU are springing for a horse. I have been in growing a silo for a acre or two. I have been in the spring ground best. For plowing for

Rat

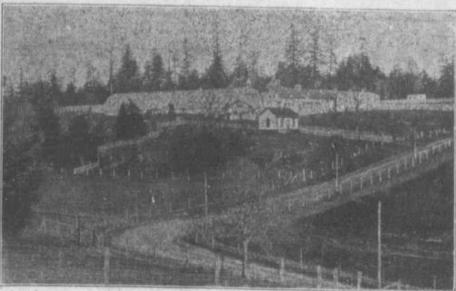
ON a floor and on both a straw pack the place, space up and stuffed paper for these from them free from the concrete plank floor crete ones frame over their home the rats no. We also put a light inch or two of the old g were stroed, so even slats up a tacked here tightly. Th for a plaste the cheapa ry of whic

Notes

EDITORS we want to see your other weat we wet well full swing other weat crops this

COR

to r m u E s h p



Splendid Buildings on the British Columbia Dairy Farm of E. & T. Raper.

Results Talk

J. T. Rutherford, Northumberland Co., Ont.

YOU ask: Do you favor fall or spring plowing of land intended for corn next year?

I have had considerable experience in growing corn for silo. I have had a silo for 17 years, and grow about 50 acres each year. I generally plant on sod. I have tried part of a field plowed in the fall and part in the spring. The spring plowed was always as good and several times quite a bit the best. For this reason I favor spring plowing for corn.

Rat Proof Construction

ON a farm which we purchased a few years ago, there was an old barn built in the usual way, plank floors and the basement wall boarded on both sides of the studding and straw packed in between. Of course the place was infested with rats. The space under plank floors and straw stuffed partitions afford ideal homes for these rodents. Nothing was safe from them. Now we are practically free from them, simply by changing the construction of the stable. The plank floors were torn up and concrete ones took their places. A concrete wall was erected where the frame one had originally been. With their homes taken away from them, the rats naturally cleared out.

We also have a rat proof granary and that at little expense. First, we put a light coating of cement, just an inch or two, over the wooden floor of the old granary. The frame walls were strongly and rigidly constructed, so over them we tacked half-inch slats up and down and to these we tacked heavy chicken wire stretched tightly. This afforded the reinforcing for a plaster wall of cement. This is the cheapest form of rat proof granary of which I know.

Notes from the Breezy West

EDITOR, Farm and Dairy.—We have had three weeks of fine weather after spell of five wet weeks. Stook threshing is in full swing and will be finished in another week. We have the latest crops this year that have been

threshed in this part of Manitoba and the biggest yields. From 45 to 72 bushels per acre of Marquis wheat are being threshed by many farmers. An early frost caught us on the 21st of August which lowered the quality of a considerable portion to No. 4 and No. 5. Oats are yielding from 60 to 100 bushels an acre. We grow Banner and Victory varieties here. Potatoes are about half a crop.

We are dairy people and grow Sweden turkeys, raising about 1,200 bushels of two acres. We store them in the barn and cut them up twice a day and mix with chop, giving a liberal quantity to each cow. We breed Ayrshire cattle and have 62 head at present, having sold 18 head this past summer. Feed is plentiful and cattle a good price. We milk 30 cows winter and summer.

Here is a remedy I have found to cure cows from kicking. Tie their heads up as high as possible and in this way they do not seem to be able to kick.—J. J. Dunfield, Dauphin, Man.

Some Holstein Experiences

EDITOR, Farm and Dairy.—We went into pure-bred cattle well over three years ago. We then had a nice herd of grade cows, but we were not satisfied. When we looked around we saw our neighbors selling calves and getting as much money for one calf as we could get for six. We decided to try pure-bred Holsteins.

In June, 1911, we purchased our first Holstein cow, Lucinda of Apple Dale, with her heifer calf, two weeks old. Since then we have purchased a few more females, which along with the increase makes up our present herd of 19 head.

In May, 1913, we bought a bull calf from Mr. Gordon S. Gooderham. He has grown to be a fine animal, and we expect that Canadian Holstein men will hear from him later on. We have four heifers and three bull calves this year. We are enclosing a photo of the first pure-bred calf we raised. She is now three years old and four weeks ago she dropped a fine bull calf. This is the first calf from our new herd sire.—John Anderson & Sons, Greenville Co., Ont.

This Book

Shows How to Make Better Farm Improvements.

A copy will be sent to you free of charge.

If you intend making any kind of farm improvements—the building of a house, barn, hen house, root cellar, tank, silo, walk, fence or the many other things needed on every farm—then you need this book.

It contains instructions for building every kind of structure better and more economical than is possible in any other way.

This book is the standard authority on farm building construction. It has proved of untold value to more than 75,000 progressive Canadian farmers.

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Compare the "BISELL" with other disks

Thousands of Farmers have tested the "Bissell" Disk Harrow in the same field with other makes and found that the "Bissell" HAS THE GREAT-EST CAPACITY.

The plates are the correct shape. They cut, turn and pulverize the soil where others

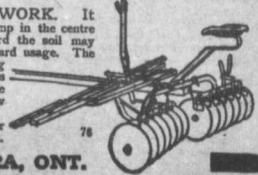
only scrape the ground and set it on edge.

The "Bissell" Scrapers meet the plates chisel fashion and keep the plates clean. Movable Clod Irons—an exclusive feature—keep the space between the plates clear.

The "Bissell" stays RIGHT

DOWN TO ITS WORK. It won't bind, buckle or hump in the centre no matter how stiff or hard the soil may be. It is built to stand hard usage. The simple method of balancing the driver's weight removes neck weight. It is the Harrow you should know more about.

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Whole room
light as day—beats
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**Wonderful
new light**
uses Coal Oil
burns 70 hours
on one gallon

See how it lights the whole room—Lamp in use is the Aladdin Table Lamp (101-A)

We'll loan you this lamp 10 days FREE!

Send no money—We *prepay* charges and even pay return express to send it back. We will stand all the expense. You don't send us a penny, you don't obligate yourself—you just **agree** to use this lamp ten days in your home to prove at our risk and expense how the Aladdin makes your lamps look like candles—how it lights every nook and corner of your room—how it beats electric, gasoline, acetylene light—how it burns without odor, noise or smoke—and SAVES ONE-HALF ON OIL. Sounds awfully good, doesn't it? Find out at our risk that what we claim isn't half strong enough.

Big Money Being Made

Sold 5 a Day
"A year ago my wife ordered a sample Aladdin lamp. We were so much pleased with the wonderful white light and saving of oil that we began taking orders. Out of eight calls I sold six. My patrons all say they are fine after using them a year."
—H. B. Stewart, Hitchcock

\$2000 in Two Wintera During Spare Time

Charlie Conrad, a farmer who made this record, writes: "It is a pleasure to sell the Aladdin. It makes good on all your claims and it is easy to convince people that it is the best lamp on the market."

"Disposal of 34 Lamps Out of 31 Calls."

"I was a live-wire agent wrote us. He made \$200 a month. Another agent who ordered over 200 Aladdins in 30 days, says: "I consider the Aladdin the best agency proposition I ever had and I have done agency work for 10 years."

New Man Sold Eight First Day

"I received your sample lamp March 8, tried it that night and the next day took orders for eight lamps." Wm. Hofer.

"Sold 800 on Trial—Not One Returned"

Here's what this agent writes: "I have sold over 800 Aladdin Lamps the past year and a half, receiving every buyer to return the lamp to me at my expense if they returned their money back. I have never had a lamp returned."

Sold \$98 Worth in 3 Days—New Man in 2

"The lamps came in yesterday and all are delivered. Every customer is perfectly satisfied. They go now—no talking necessary. I sold little time, it has been easily sold."—E. N. Peterson.

Burns 70 Hours on One Gallon of Coal Oil

You get between two and three times as much light yet you save half your coal oil bill with the Aladdin. This is a proved fact—not a claim.

Government and Leading Universities Tested the Aladdin

The thorough tests of these great institutions show the Aladdin gives nearly three times as much light as the best round wick, open flame lamp, with half the oil—show that the quality of Aladdin light excels even the Tungsten electric light.

Banish Eye Strain—Save Children's Eyes

Physicians say steady, white, bright light is best. The University tests prove Aladdin illumination is nearest to daylight. Yet for you to get this wonderful lamp is economy. Pays for itself in oil it saves.

\$1000 in Gold for a Lamp Equal to Aladdin

To the person showing us an oil lamp equal to the Aladdin—we'll pay \$1,000 in gold. Write for circular giving details of this great challenge offer. If there was any doubt about the superiority of the Aladdin, would we dare invite such comparison?

\$100 to \$300 Per Month

Being Made by Men with Rigs or Autos Delivering Aladdin Lamps

on our easy trial plan. Every home wants and needs this wonderful light, but from half the usual amount of oil produces the brightest, mildest light obtainable. To sell the Aladdin is a simple matter of getting the light into people's hands. After a trial nobody wants to go back to old feeble lighting methods.

No Experience Needed—Look What This Farmer Did

"N. R. Christensen writes: "Sold over \$1,000 worth of Aladdins in 3 mos. When I come back a second time to my territory I am received with pleasure and an increase of orders."

No Money Required; We Furnish Capital

Without experience, you even without capital, you can make a big success by placing the Aladdin on trial and collecting the money. If you haven't capital we will help you with our liberal credit plan, if you have the desire to make money and are energetic and honest, nothing can stop you from making a big thing with the Aladdin.

Hundreds of men are making \$100 to \$300 a month. So can you.

To One User in Each Locality We Offer the Chance to Get the Aladdin Free and Make Big Money

We want one user in each locality to whom we can refer people who are interested in the Aladdin. Be the first and get, free, the Aladdin which we loan you for 10 days for showing to a few neighbours and sending in their orders. You can easily do this. We'll tell you the whole plan when you write, also arrange our 10 days' loan of the lamp to you. Don't wait, send the coupon—fill it out right now. Send to nearest office.

MANTLE LAMP CO., 279 Aladdin Bldg.

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Gold Medal Winner at World's Exposition San Francisco

Gives a strong, steady white light

Montreal or Winnipeg

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Just like these and the thousands of other Aladdin Agents—YOU CAN MAKE EASY BIG MONEY—with the Aladdin. Here's your chance.

College Expenses Paid

"I have sold numerous other articles, but none that had a look-in with the Aladdin. As a college student, money has been a serious problem, but with Aladdin lamps and a little time, it has been easily solved."—E. N. Peterson.

No Experience Needed

"I have had no experience as an agent, but have no bother selling the Aladdin. Following your plan of leaving lamps on trial. One day I left 8 lamps on trial and in two days went back and sold 5 out of the 8."

Here's What a Few of the 3,000,000 Users Say about the Aladdin

"I received lamp No. 101 as per order and I feel just like going out to look at the house and kicking myself for two hours for not having one years ago. Whenever I buy another lamp it will be an Aladdin."—A. C. Gough, Chester.

Better than Installed Systems

"I cannot understand why people should go to the expense of putting in gas-making outfits and piping their houses a cost of \$100 or more, when they can get a better light with the Aladdin Mantle Lamp."—E. D. Brice, R. 17, Sand Hook.

Other Lamps Look Dim Beside Aladdin

"My other lamps, as we use in the kitchen look worse than thirty cents. I would not believe there was such a difference in the only way to find out is to use the Aladdin along with the other style of lights."—F. F. Dennis, Edgewater.

Easy to Read Anywhere in Room

"I am 85 years old and would have to get the paper close to the lamp, but for Aladdin, I can sit in any place in the room and read newspaper print without any trouble."—Alex. McKee, Coonout.

\$25 Wouldn't Buy It

"I am so well pleased with the lamp that if I could not get another \$25 wouldn't that be?"—W. T. Rottell, Portland.

A Great Invention

"I bought your lamp among the greatest inventions of modern times. I am astonished at the amount of light that my lamp gives, but nevertheless it just the same."—Wm. O. Ryan, Kansas.

The Practical Xmas Gift

10 DAYS' LOAN COUPON

MANTLE LAMP CO., 279 Aladdin Bldg. Montreal or Winnipeg

Gentlemen—I want to know more about the Aladdin Lamp and your 10-day LOAN OFFER, also tell me how I can get the Aladdin Lamp free, and explain your easy delivery plan under which inexperienced men make \$100 to \$300 per month without capital. This is no way obligates me.

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Puddings

**Light and Savory,
Easy to Digest**

The same good flour that makes the lightest bread, biscuits and muffins will make your puddings more daintily porous — palatable — *digestible*. Even when used in small doses, FIVES ROSES binds together the other ingredients and blends their delightful flavors.

We invite you to follow the lead of Canada's best cooks—and use

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FLOUR for Breads-Cakes
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And your reward will be those well-swollen puddings that maintain till eaten their freshness and aroma.

The kind that cuts into dainty slices without crumbling or ragged edges—Never soggy, insipid; never a disappointment.

And due to the wonderful nutritive value of FIVE ROSES, every spoonful becomes a toothsome source of vitality.

See that you also are given FIVE ROSES at your dealer's.

Your success will be so stimulating that soon you will *insist* on using it whenever "flour" is mentioned.

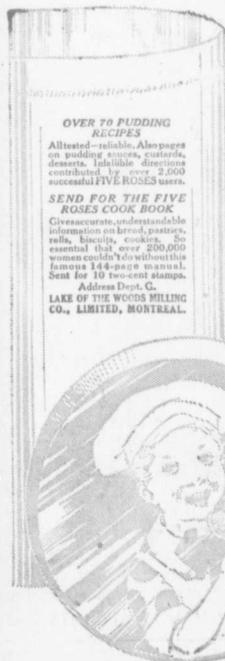
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Gives accurate, understandable information on breads, pastries, rolls, biscuits, cookies. So essential that over 200,000 women couldn't do without this famous 144-page manual. Sent for 10 two-cent stamps.

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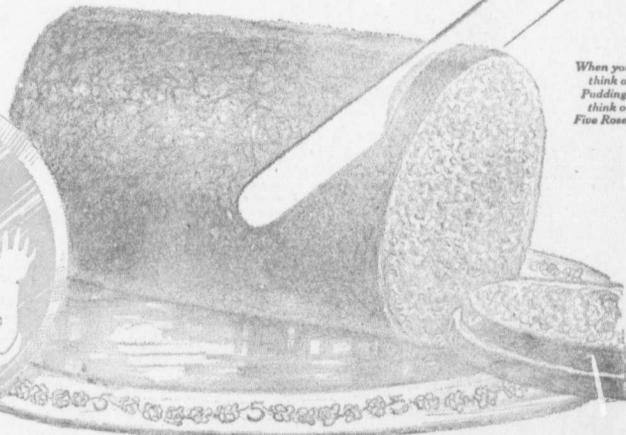


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Fruit
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Puddings
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