

FARM AND DAIRY & RURAL HOME



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY

Compt. of Conservation
Asst. Chairman Jan 10



Toronto, Ont., April 18, 1918



A SEEDBED IN FINE TILTH ON A FARM NEAR TORONTO.

Feeding the Soil

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Docking and Castrating the Lambs

Why Necessary and How Performed. Page 4.

Big Crops of Potatoes

G. A. Williams Gets 400 Bus. per Acre. Page 4.

The New President

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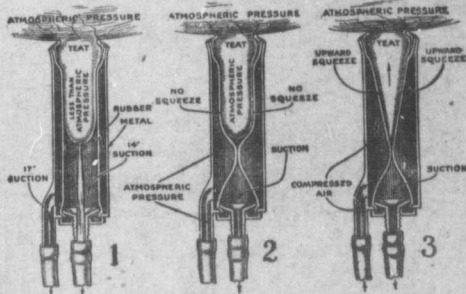
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Experience has shown that a milker cannot be truly efficient without the compressed air line—an exclusive, patented Sharples feature. This scientific principle is responsible for the great success of the

SHARPLES MILKER

THE ONLY MILKER WITH POSITIVE SQUEEZE

You can readily understand that drawing the milk from the udder down thru the teat also draws blood from the veins of the udder down into the smaller veins of the teat. To keep the teats in a natural, healthy condition, and to avoid congestion, this blood must be continually massaged back from the teat. That is the important function of the Sharples "Upward Squeeze."

As a direct result of using compressed air, Sharples is the world's fastest milker. Official tests prove this; ask for Bulletin. Fast milking increases the milk flow. That is why the Sharples Milker, with its healthful massage and faster milking, makes every cow more valuable. With a 3-unit Sharples outfit one man can easily milk 30 cows an hour, get more milk and in one-fifth to one-half less time than with any other machine. In daily use on half a million cows.

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The Sharples Separator Company

TORONTO, CAN.

REGINA, SASK.

Tuberculosis of Cattle and Tuberculin Test

A Simple Explanation of the Disease and Its Detection.

Prof. D. H.

Jones, B.S.A.

THE tuberculin test of cattle is for the purpose of determining whether or not an animal is suffering from tuberculosis. The test, when properly employed, while not absolutely infallible, has shown itself to be reliable in ninety eight per cent. of cases in many thousands of tests in Europe, the United States, Canada and other countries. It is the only reliable means of determining whether or not an animal is tubercular, and the animal is very far gone with the disease or has only very recently become infected.

Tuberculin is a brown-colored liquid obtained by growing *Bacillus tuberculosis* in specially prepared beef broth. After the bacilli have grown in the broth for a sufficient length of time, they are killed by the application of heat. The broth is then filtered and condensed and a preservative is added. This product is known as tuberculin. This tuberculin is to be tested and established at a proper strength before being used.

Application of the Tuberculin Test. In order to tell whether or not the temperature of an animal rises following an injection of tuberculin, it is necessary first of all to find out what is the normal temperature of the animal. In doing this, it is necessary to have the cattle quiet in their stalls. If the cattle are feverish from any cause, or have just calved or are just about to calve, the test should not be made.

The temperature is taken by inserting a clinical thermometer in the anus or rectum, allowing it to stay there for two or three minutes, and then taking the reading. At least three temperatures of each cow should be taken at intervals of two hours before injecting the tuberculin.

The tuberculin is then injected beneath the loose skin near the shoulder by means of a hypodermic syringe. After about eight or nine hours from the time of injection, it is necessary to begin taking temperatures again. These should be taken about six times at intervals of two hours. If the animal is tubercular there will be a gradual rise of temperature of from two to five degrees above the highest temperature reached before the tuberculin was injected, then the temperature will gradually fall again to normal. If the animal is not tubercular, the temperature recorded after the injection of the tuberculin will be approximately the same as those recorded before the injection. The tuberculin has no effect, either good or bad, on cattle that are not tubercular.

Reasons for Making the Test. Tuberculosis is a disease that is widely spread in all civilized countries. It is common in cattle, swine, birds and human beings. The disease is usually slow in developing, so that an animal may be infected for months or even years without showing any marked symptoms of the disease.

There are three recognized strains of tubercle bacilli: the Bovine, affecting most readily cattle and swine; the Avian, affecting most readily poultry, particularly domestic poultry, and the Human, affecting most readily human beings.

It was thought at one time that the bovine strain of the tubercle bacillus could not establish tuberculosis in human beings, and that the human strain could not attack cattle; and that the avian strain could not affect either cattle or men. It has since been demonstrated, however, that the bovine strain can and does readily establish the disease in human beings, particularly in the case of infants whose diet, of course, is mainly milk. It has been proven that a considerable percentage of tuberculosis in children is due to infection from milk that has been obtained from tubercular cattle. One reason, then, for having cattle tested for tuberculosis is that we may prevent infants from contracting the dread disease that causes so much misery in our midst. Any town or city that wishes to control its milk supply so far as tuberculosis is concerned,

can demand that those who supply it with milk shall have their cattle tested under government supervision and all tubercular animals excluded from the herds from which the milk is obtained. Any town or city wishing so to do should state the case to the Veterinary-General at Ottawa.

Financial Loss to the Farmer. Another reason why farmers should have their cattle tested is the financial loss which the sufferer by having tubercular animals in their herds. As the disease is at first slow in development, it does not induce sudden death, like anthrax, black leg, or hog cholera, the farmer does not realize the loss that he endures by having tubercular cattle until he has lost a considerable number of the disease in an advanced degree and die or are slaughtered, when they are at once seen to be rotten with the disease.

When the tubercle bacilli get lodged in the animal's body from contaminated food, water or atmosphere, they begin to multiply and produce growths which attack locally, killing the tissues where they are located and causing the development of tubercles. These tubercles may develop in any part of the body where the bacilli get located. When they develop in the lungs, the lungs are gradually destroyed, the animal gets chronically coughed, and large numbers of the bacilli are coughed up into the mouth and are either drooled out with saliva or are swallowed and then either excreted in the droppings or they set up further infection in the intestines. When there is tuberculosis of the intestines, the animal is likely to die from the effects of the droppings and so large numbers of the bacilli are thus thrown off.

When tuberculosis gets established in the udder, the udder will become tender and large numbers of tubercle bacilli will be given off in the milk. When the disease has developed to such an extent in the animal's body as to show any of the above conditions in other parts of the body, such as the heart, liver, stomach, lymph glands, uterus and peritoneum are most likely affected, and this is the most dangerous condition of the animal in very much of a losing concern, either as a producer of milk or beef. But the loss to the farmer is not necessarily confined to this extent. For long before the disease has reached this extent, the animal has been a source of infection for the rest of the herd, and in all probability a number of the herd have contracted the disease from it.

Eradicating the Disease. The tuberculin test will indicate whether or not an animal is tubercular long before any clinical symptoms are visible, thus enabling one to deal with such an animal before it becomes a dangerous spreader of the disease. When an animal is shown to be tubercular, it should not be allowed to mix with the rest of the herd. If the disease is in an advanced stage its removal should be thought of. The internal organs of such an animal may be badly tubercular, but the muscle meat scarcely affected, so that its value of the animal, so far as its eating value is concerned, could be recovered. If the disease is not in an advanced stage the animal should be separated from the rest of the herd and kept separate. Its milk should be pasteurized before use. After the cow cedes the calf should be at once removed and fed milk from healthy cows, or its own mother's milk after pasteurization.

It has been demonstrated again and again to be possible thus to gradually eradicate tuberculosis from a herd. Of course it means a little more work and the exercise of care, which may seem to be too much bother to some farmers. But we cannot get much good in this way without a reasonable amount of effort being put forth, and to have a herd of cattle which are known to be free from tuberculosis is most certainly worth the trouble to detect and remove the disease.

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W. W. W. Trade Increase VOL. XXXVI

NO one appreciates the value of the laborer until he implements situation the way of "normal" condition. And while generally are talking in their efforts to we farmers are to the best use of what is keeping up as production.

In studying out occurred to me that the labor at hand land, but rather, by the acre of ground would a point past which force yields, but Ontario which could produce larger crops fertilizer, whether or the commercial.

I have been looking in this connection endeavor to find out most profitably one strikes me that per found of interest in fellow farmer, who had a section of his farm. One of the plans land which was a "Illinois way".

I see legume manure to the soil, once in four or five acid soils, provision about two tons per acre of the manure manure with rock fertilizer, the amount of manure used. The application shows phosphate ever four.

Essence. The essential food to be lacking in soil is calcium. The constituent of plant the yield of crops, if these crops for as heavily by growing taken to see that it does not become if it is the soil is of or alfalfa. It is also and from such Phosphate fertilizer grain crops. They or plowed under with of grain crops.

of manure favors the Good results are seen when applied alone, surveys have been found most deficient, made by treating the seed. This makes available for plant the price of sulphuric acid made this form expensive.

Potash is essential its presence in a soil the necessary strength

The New President of the United Farmers' Company

Who He Is—What He Is—Why He Has Jumped Into Fame—What We May Expect From Him

WHO is this man Burnaby? This is a question of good many farmers and other people as well have been asking pretty frequently of late. It is a natural question.

From a position where he was known to comparatively few farmers, besides those of his own township, and a number of breeders of Holstein cattle, Mr. R. W. E. Burnaby, of Jefferson, Ont., within the past three months, has jumped into a place where he is now one of the most prominent men in agricultural circles in Canada. People, therefore, are naturally asking what are the qualities which have enabled him to make such a rapid advance, who he is, and whether or not he is likely to make good.

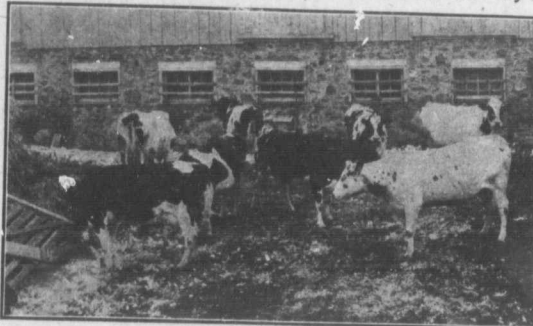
Mr. Burnaby's first big jump into the provincial limelight took place last December, when the farmers who are shareholders in the United Farmers' Cooperative Co., Limited, elected him a director of the company, and when immediately afterwards the directors of the company appointed him, although he had had no previous experience on the board, president of the company. A second advance was made by him in February, when the members of the Canadian Holstein-Friesian Cattle Breeders' Association, at their annual meeting, elected him as fourth vice-president of the association, a position usually obtained only after a breeder has had one or more years' experience at least on the board of directors.

Who is He?

Mr. Burnaby farms on a large scale in York county. Highland Lake Farm, his home farm, comprises 170 acres. Across the road from it Mr. Burnaby owns another 50 acres. About a month ago he purchased 100 acres near Elgin Mills. In addition to all this, he rents 450 acres of land, mainly for pasturage purposes adjoining the home farm. Thus, between what he owns and what he rents, he has 770 acres under operation.

Mr. Burnaby is one of the most extensive and most successful Holstein breeders in Canada. His advance, as a breeder, has been phenomenal. Everything he can do, he likes to do in a big way, as he believes that it often is easier to succeed in doing things in a big way than doing little things in a small way. His success with Holsteins is a case in point. When analyzed it is not difficult to understand. The principles he follows are simple and easily to be understood, although only men with ability such as Mr. Burnaby possesses could hope to make them succeed.

The Highland Lake Herd comprises about 100 head of which 30 are in milk and the remainder breeding and young stock. Mr. Burnaby's start in Holsteins was made only three years ago. When asked why he selected this breed, his reply was characteristic: "I found," he said, "that all world's records for milk and butter, either for short or long periods, were held by Holsteins. I decided, therefore, that that was the breed I wanted to be identified with." Asked further as to how he got his start, he replied, "I went all over Ontario visiting the herds of the best-breeders. I made it a point



The Type of Stock on Mr. Burnaby's Farm. In building up his herd of Holstein cattle, Mr. Burnaby has always aimed at a combination of good records and strong constitutions.

to pick out the cow that the man who had it didn't want to sell." The year he first started Mr. Burnaby purchased 40 animals, from such well known breeders as L. H. Lipst of Straffordville, J. A. Wallace and Mason Bros. of Simcoe, R. F. Hicks of Newtonbrook, Partelle and Leavens of Bloomfield, and Wellington Sager of St. George.

"In business," said Mr. Burnaby, "a man who has a good article never has any difficulty in disposing of it at a fair price. A good article is often cheap at a high price, whereas a poor article may be dear at any price. When I went into Holsteins I decided that this principle would apply to dairy cattle as much as to anything else, and I decided, therefore, to get the best possible blood in my herd, even if I had to pay long prices to get it. While I know it would cost me a good deal to get started in this way, I realized that if I had the right breeding I would be able to obtain sufficiently good prices for my stock to more than offset the expense involved in obtaining my foundation herd. As the sire is more than half the herd, I made up my mind that the sire that headed my herd would have to be the very best obtainable. My first sire in service was Sir Lyons Hengerveld Segie, a son of the great King Segis, and Blanche Lyons De Kol, with a record of 33.31 lbs. of butter in 7 days. He is a brother of the sire of Segis Payne Johanna the world's only 50.55-lb. cow.

"Our next herd sire was King Segis Pontiac Canada, a son of the best proven son of the world's greatest sire, King of the Pontiacs and Pride Hengerveld Lennox, 30.12 lbs., a noted show cow and granddaughter of King Segis. Our present sire in service is Avondale Pontiac Echo (under lease) a son of May Echo Sylvia, the world's record cow for milk production and Canadian record for butter, viz., 41 lbs. in seven days. There is only one other 41-lb. bull in Canada."

Some Fine Females.

With such herd sires it is not to be wondered at that Mr. Burnaby has sought to have equally good

females. In this he has largely succeeded, as anyone will see who obtains a copy of his "Book of Bulls," one of the most complete, if not the best, catalogue of animals that has ever been issued by a private breeder in Canada. His herd comprises, with not more than one or two exceptions, more 30-lb. cows than any other herd in Canada. Katy Burke Kornatky Pontiac has a record of 33.12 lbs. of butter in 7 days and 134.64 lbs. in 30 days. Tilly Albino De Kol, as a four year old, has a record of 31.92 lbs. in 7 days, and 123.35 lbs. in 30 days. Daisy De Kol Hengerveld has to her credit 31.43 lbs. in 7 days, and 123.32 lbs. in 30 days. Simcoe Mercedes Quince has a 30-lb. record. In addition there are many other fine females in the herd.

When Mr. Burnaby's farm was visited recently by an editor of Farm and Dairy it was noted that he paid careful attention to the comfort of his animals, even although, as he frankly confessed, he did not maintain his herd for

show purposes. "My aim," said Mr. Burnaby, "has been to select animals of heavy producing strains, both males and females. I do not believe, however, in sacrificing type and therefore keep type to the very animal as it freshens. I endeavor to test tomsers may always know what they are getting when they buy stock, and also in order that they may reap the benefit of any additional value that may be derived by records made by related animals. Some time ago we sold a bull and heifer from a 22-lb. cow, and within three months their value was more than doubled by our making a record of over 30 lbs. on their dam."

In his catalogue Mr. Burnaby gives some terse suggestions on breeding that are worth repeating. Here are some of them:

"Remember the saying—'The bull is more than half the herd'—one poor cow means one poor calf each year and one poor bull means all poor calves.

"The better bred sire you own the better bred and higher priced will be his offspring.

"You can always sell your bull calves if you own the right kind of sire.

"You do not know how good a bull is if you do not know the official records back of him.

"Do not be satisfied with just pure breeds, test them and be sure your sire is better than your females. Grade up not down, but be sure.

"Never buy a bull because he looks cheap. He will probably prove very expensive, not to mention the years lost in finding it out.

"Remember it is quality that counts. Grow along quality lines.

"Club with your neighbor and buy a good bull, divide the cost and increase your profits by improving your herds, making a demand for your increase."

The Farm Buildings.

As will be seen by the accompanying illustrations, Mr. Burnaby's home and farm buildings are attractive and commodious in character. They are situated

(Continued on page 5.)



A general view of the buildings on Mr. Burnaby's farm. From left to right we have hired man's house, barns, and Mr. Burnaby's residence.

Sending Money to Soldiers

Those who have friends or relatives at the front, may wish to send money, but possibly do not know the best way to do so.

If time permits, the safest and most convenient method of making remittances abroad is the Bank Money Order or Draft, as issued by The Merchants Bank.

If, however, it is necessary to send money without delay, the Bank will arrange this by Cable Transfer.



17

THE MERCHANTS BANK OF CANADA

Established 1864.
Head Office: Montreal.
With its 182 Branches in Ontario, 33 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 21 Branches in Alberta, and 1 Branch in British Columbia serves Rural Canada most effectively.
WRITE OR CALL AT NEAREST BRANCH.

"Goes Like Sixty"

WE WANT TO DEMONSTRATE ON YOUR FARM

We will send a Gilson Engine, any size, without charge, to any responsible farmer in Canada to try out on his own farm, at his own work. Write for further particulars of free trial offer, catalogue, and special introductory prices.



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257 York St., Guelph, Ont.

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Union-Made
Overalls
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My
Dad
wears
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Bob Long says:

"My overalls and shirts are the best made, because they are roomy and comfortable. I designed them with the idea that you might want to stretch your arms and legs occasionally."

Insist on "Bob Long" brand. Ask your dealer for Big 11—the big grey overalls—the cloth with the test.

R. G. LONG & CO., LIMITED
TORONTO — CANADA

37

Deal with Farm and Dairy Advertisers



Feeding the Chicks

By F. E. Ellis.

ARTIFICIAL incubation is easy; at least we have found it so. It is artificial brooding that calls for the utmost care and it is here that the poultryman registers his heaviest losses. We have never failed to hatch out a good percentage of chickens, but during the first season or two when we were getting our experience with artificial brooding, we said sadly for the knowledge gained. The method that we have found most satisfactory is one recommended by Prof. W. R. Graham at Guelph. It is a method that calls for care, as the chicks are fed five or six times a day and every ounce of feed that they get must be weighed carefully.

The first day the chicks are in the brooder house they have warm water to drink and grit on the feed board. For the second day and the rest of the first week they are fed six times—at 6:45 a.m., 9:30 a.m., 11:30 a.m., and 2, 4, and 6:30 in the afternoon. The first week they get mash mixed in the following proportions: Two cups bread crumbs, two cups rolled oats, one cup hard boiled eggs and grit on the feed board once a day. The second day of this feeding they are given one quarter of a teaspoon of chick feed in the litter to 60 chicks after each feeding when they have cleaned up their mash. This amount of feed is just about right. They will gather the chick feed so energetically that they will throw the litter a foot or two and there is no surer sign that they are being overfed than when they do not take an interest in the chick feed. This first week they get no milk, but the several drinking fountains are always full of clean water.

The second and third weeks the chicks have sour milk to drink in addition to the water. We give them two feeds a day of the same mash as the first week with the amount slightly increased, but with no chick feed following. Two feeds of chick feed, one and a quarter to one and one-half ounces to 60 chickens, and two feedings of a wet mash, composed of 100 lbs. bran, 100 lbs. low grade flour, 100 lbs. corn meal, 100 lbs. beef scrap and 25 lbs. of bone meal. Fine white middlings may be substituted for the low grade flour, which is not now generally obtainable. At one feeding, the chicks are given all they will eat and in the third week the chicks are fed the same, except that they get all of the mash they will eat twice a day instead of once.

The fourth week we start to hopper feed the chickens and they have rolled oats in front of them all the time. These are not the table rolled oats, such as are used in their mashers the first three weeks, but horse oats or bruised oats. At noon they get a mash crumbly wet of corn meal, rolled oats, middlings and beef scrap, equal parts of each, or where skim milk is fed, one-half part of beef scrap will be sufficient. At night they get chick feed in the litter, all they will clean up. The fifth week this same system is followed, but at six weeks and thereafter they are hopper fed, except for a wet mash at noon. It will not be long before they will be neglecting the wet mash and from then on they are entirely hopper fed, with a choice of rolled oats and a mixture of cracked corn and wheat. Charcoal or fine grit and fine oyster shell are kept before the chicks at all times from the first week on.

If there is any one point that is more important than another it is that perfect cleanliness be preserved

throughout. The litter must be clean and free from dust. We have found that alfalfa or clover leaves make an excellent litter. The drinking dishes are washed and scalded regularly and the angles on which the chicks are fed are never left on the floors longer than it is necessary for the feed to be eaten. If they have not a run of fresh green grass, they are given finely pulped mangels or sprouted oats. They take a lot of enjoyment scratching over the green sward which we cut and throw on the floor of the brooder house. And again let me say—it is absolute regularity and care in weighing rations that makes for successful feeding of small chicks.

Poultry Facts and Theories

By M. K. Boger.

THESE used to be a theory, and with some it is still believed, that the presence of a small pigeon-sized egg means that that particular hen has laid out her litter and will not begin for some time. That theory has been exploded by the aid of the trap nest. The records kept by the writer show that on February 17 Brahma hen No. 27 laid a small, pigeon-sized egg; the next day she laid another small egg, but somewhat larger than the one of the day before. Two days later she laid a regular-sized egg, and continued doing so until the 26th of the month, when she laid a double-yolked egg, which proved that both the pigeon-sized and double-yolked eggs are the product of hens that are too fat. This hen in question was very fat.

Meat in some form must be fed poultry. Poultry on free range, especially in an orchard, gather a vast amount of bugs, worms and insects that furnish them all the meat food required. But very few flocks have the advantage of an orchard range, and as the majority of flocks are kept in confined quarters, the question of a meat supply must be carefully considered. The green bone cutter has done much to solve the important question, but an injudicious use of green bone has caused troubles in other ways. It developed worms in fowls, and it produced irritability in the stock. In raising growing stock it caused a too rapid development of the comb and wattles. A fresh meat diet should be given cautiously—not more than an ounce for each hen, and no often than every other day. An excellent substitute for green bone is the commercial meat sold by poultry supply houses. Being thoroughly cooked and dried, it is in a safe condition for feeding, and can be safely fed at the rate of 12 to 15 per cent.

While we believe in breeding up for heavy records, at the same time we would rather have our hens average 120 eggs a year, and remain in robust health; than to have their systems drained of vitality in the race to pass the 250 mark. There is a reason in all things. If we are to force our stock ahead to be champion layers, we are going to do it at the sacrifice of something else. What will become of our meat supply if we are going to put all the force to work on eggs? Why we spend our food and attention on the fowl with a view to creating an ideal carcass, do we not make the egg layer suffer? Will not this unnatural flow of eggs tend to cripple fertility and make weak, puny chicks? Why not work for both eggs and meat? Why not have a limit? If we can gradually increase the powers of a hen so that she will average 200 eggs a year, and yet maintain health and meat qualifications, it is advisable to go ahead. But to build up the one at the expense of the others will eventually produce a delicate race. We want the 200 egg hen if we can get her within reason.

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Vast Issues Depend Upon the Welfare of Our Boys

TRY to picture yourself in the muddy cold trenches after exciting days and long nights of mortal danger and intense nervous strain. Rushing "whiz-bangs" and screaming "coal boxes" are no respecters of persons. You are hit! But despite shock and pain you still can face the long weary trudge back to dressing station. Weary, overwrought and depressed you are prey to wild imaginings of that other coming ordeal with the surgeon. There are other "walking wounded," too! You must wait, wait, wait. And then—

Up comes a cheery Y.M.C.A. man, the ever present big brother to the soldier, with words of manly encouragement. Close beside the dressing station the good, generous folks at home have enabled him to set up a canteen. He hands you biscuits, and chocolate or coffee.

"In thousands of cases," writes an officer, "it was that first hot cup of coffee that dragged the man back to life and sanity!"

The tremendous helpfulness of the Y.M.C.A. as an aid to the "morale," or fighting spirit, of the soldiers is everywhere praised. No wonder the Germans make every effort to smash the Y.M.C.A. huts out of existence.



Cheer Up, and Thank God for the Y.M.C.A.!

Y.M.C.A. Red Triangle Fund

\$2,250,000, May 7, 8, 9

Canada Wide Appeal

The Y.M.C.A. is everywhere. You first met the helpful manly Y.M.C.A. worker in camp, then on train and boat, at camp in England and in France, close to the firing line. Often he risks his life to reach you in the trenches. He has won the warmest praise from military authorities, statesmen—the King!

Have you a precious boy at the front? You cannot be "over there" to guide him away from fierce temptations of camp and city. You cannot comfort him in his supreme hour of trial. Your parcels to him are necessarily few. But the Y.M.C.A., thank God, is "over there," going where you cannot go—doing the very things you long to do—doing it for you and for him.

Will you help? This vast organization of helpfulness needs at least \$2,250,000 from Canada for 1918. For your boy's sake be GENEROUS!!

Brief Survey of

Y.M.C.A. Service to Soldiers

Branches in 20 Forestry Camps established last year.

and other cities for returned soldiers and enlisted men.

Y.M.C.A. nightly under fire in many places.

Y.M.C.A. service extends from Vancouver to the firing line and then back to patients in hospitals until men are discharged.

300,000 letters a day written in Y.M.C.A. buildings.

Y.M.C.A. Secretaries accompany troop trains.

Troops furnished with athletic equipment (helps morale of troops).

Between 400 and 500 millions of letters and cards written and posted in Y.M.C.A. tents, huts and dugouts since war began.

Entertainments, Bible classes, sing-songs, good night services and personal interviews conducted by Y.M.C.A. workers.

Splendid service to boys in Canadian Camp hospitals. Regular sing-songs and inspirational addresses with distributions of magazines, fruit, chocolates, gum, books and smokes.

Y.M.C.A. Red Triangle Clubs in Toronto, St. John, Montreal

National Council, Young Men's Christian Association

Headquarters: 120 Bay Street, Toronto

JOHN W. ROSS (Montreal)
National Chairman of Red Triangle Fund Campaign.

G. A. WARBURTON (Toronto)
National Director of Red Triangle Fund Campaign.

New President of the United Farmers' Company

(Continued from page 5.)

TO ALL
Sheep Owners

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ated some 20 miles north of Toronto on the Metropolitan Electric Railway. The farm derives its name from the fact that a most attractive lake of about 30 acres is located on the farm, immediately west of the house. The farm was bought three years ago. In the interval the houses and buildings have been greatly improved.

The barns are lighted by electricity which also furnishes the power for operating the separator and other machinery used in the barn. In the north-east corner of the barn is a well-ranged milk house, splendidly equipped and along the north side is a root cellar, 16 x 60 feet. There are two silos, 16 x 95 feet, both of which were filled last fall. Mr. Burnaby had had considerable success with his corn crop. Last year he grew some 28 acres, parts of which were over 12 feet in height. His stables contain 22 box stalls. Last year he won second prize in the standing field crop competition for oats, his 10-acre field of oats threshing 77 bushels to the acre. Last year he grew 60 acres of oats.

The home farm is divided into 20 acre fields, except for a two-acre paddock at the barn. For the most part, the soil on the farm is a heavy loamy clay. The principal crops grown are hay, oats, corn and roots, all of which are raised for the purposes of the his herd of stock that is kept. Some idea of the scale on which Mr. Burnaby operates may be realized when it is stated that his sales last year of cattle alone exceeded \$25,400, in addition to which the income from cream sold to the Olive Farm Dairy, amounted to about \$3,000. It is not uncommon for him to receive \$600, \$800 and even \$1,000 and over for a single animal.

Mr. Burnaby maintains four men steadily the year around, and claims to never have any trouble with his help. He has two good houses for the married men, fitted with a furnace, electric lights, phone connection, stationary tub and a bath room. These houses are shown in the foreground in one of the accompanying illustrations.

Mr. Burnaby's Start.

While Mr. Burnaby is proving himself a practical farmer and breeder, and now claims to have settled down to farming for life, his first success was really achieved in business. His progress in the business world was interesting and rapid. Born on a very small farm in Queen's county, Nova Scotia, 60 miles from a railroad, at a point that is still 32 miles distant from railway connections he lived there until 1899, when he was 17 years of age. His mother still lives there. There were seven children in the family, most of whom, practically all of whom have made good in a big way. When 18 years of age, he took a six months' course in the business college at Belleville, after which he accepted a position as bookkeeper in an organ manufacturing company in Toronto, at a salary of \$8 a week. Within three years, he had become manager of the company, and was drawing a salary of \$1,500 a year.

Mr. Burnaby had outstanding ability as a salesman. He has proved this ability not only as a Holstein breeder, by obtaining the prices already mentioned for his stock, and which have been a revelation to other breeders, but also by his success in selling the stock of the United Farmers' Cooperative Company, Limited. This quality of salesmanship manifested itself early in his business career, when after leaving the organ factory he accepted a position with the Canada Life Insurance Company, with whom he remained as an agent for about four years. His work in this position led to his becoming manager for the Dominion Life Insurance Company, a position he held for three to four

years. His next move was to the Imperial Life Insurance Company, as the manager for the city of Toronto and the county. In the late of 1900 he was a member of the \$500,000 club, a club among insurance men which can be entered only by those agents who succeed in selling \$500,000 worth of insurance over a year. The fact that he was a member of this club for four years in succession is an indication of his ability. It became the custom of commissions at this time amounted to over \$10,000 a year.

Having obtained a good start in the life insurance business, Mr. Burnaby next took up the real estate and ancillary business. Very soon he had over 50 salesmen whose salaries ranged up to \$1,000. In the case of one man, as \$12,000 a year. After three years in this business, in which he was quite successful, he sold out the business to a trust corporation.

Lived in York County.

For nine years Mr. Burnaby lived near York Mills in York county, a short distance north of Toronto, where he became well acquainted with the farmers and breeders of the locality. Three years ago, having made all the money he felt any need for, he decided to take up farming and bought and moved to the farm on which he is now located.

Last summer, Mr. Burnaby attended a meeting at Markham, in York county, which was addressed by Mr. John Kennedy, vice-president of the United Grain Growers' Ltd., of Winnipeg, and by Mr. J. J. Morrison, of the United Farmers' Cooperative Company, Limited. He has heard a good deal about the farmers' movement in Ontario, and the west, and was more interested in it through addresses he heard that day. Later he attended other meetings, came to the conclusion that movement had great possibilities in Ontario and began to identify himself with it. Because of his business training, his interest has naturally run largely towards the Cooperative Company. Already he has accomplished much valuable work for the farmers' movement. Realizing the absolute necessity that the company must have more money if it is to succeed, he took hold of the work and was instrumental in selling several thousand dollars' worth of stock at the last annual meeting of the United Farmers' Association, and of the shareholders of the company. It was his success in this work that was mainly instrumental in leading to his election to elect him a director of the company. Since being elected president, Mr. Burnaby has sold thousands of dollars' worth of stock to the company, and he has also visited Winnipeg, where he spent several days enquiring into the methods followed in business matters by the United Grain Growers.

It is yet too early to predict what the results will be of Mr. Burnaby's connection with the United Farmers' Cooperative Company, Limited. The problems that face him in his new position are different and probably more complicated and difficult than any he has ever encountered in the past. He is grappling with them bravely and with great self-sacrificing his time and interests, without any salary return, in order that he may do so. His success, in a big way, in the things he has accomplished in the past, give him every reason to hope for an equal measure of success through his connection with the United Farmers' Cooperative Company, Limited. Should he succeed in helping to pilot his company through its initial difficulties, and in establishing it on a firm basis, he will accomplish something that will outshine and outlast all his achievements hitherto.—H.B.C.

HORTICULTURE

Seasonable Garden

STRAWBERRIES may be used as soon as the ground and the plants can be kept in small onion sets are just large ones for growing in and there are more to be had. Herbs that should be seen and that are easy to plant, sage, and Caraway. Be prepared to spray this orchard with insecticide. If you can't do this at the orchard.

Onions that have been winter sown will be used as they out. As soon as they begin to decay.

Eat two potatoes instead of one less meal. You will find that the potatoes are better. A few evergreens planted in a home this year will soon be trees that will protect the home.

Do not throw away medicinal herbs when they are blooming, but plant them in the den or the flower border.

Row sadish seed with onion or carrot. They come up to mark the row, making it easy early.

Parasols properly cooked collect vegetable. They grow. Get fresh seed and early. Cultivate well during winter. They are not hurt either early or late.

Spiraea Van Houttei is a hedge plant that does not harm the garden. It has been better because it comes in the autumn. It is not for fast.

If your order of nursery plants are ready have them in for a few days. Cut open and spread out the packing, pack the dirt with roots. It is a good plan to get or two things of this kind that it may not dry out.

Clean-up for Spring

THE common garden, slimy, slow-moving, mollusk of our garden, and lawn, prove unusually serious pests.

Remedial measures are successful against it. A spray of all trash, crop remnants, etc., about the premises, and the burning of destruction here, ferns and about the fields followed by the application of lime will do some practice to control snail and slug pests in situations and will be destroyed some time.

If the clean-up is thorough, consisting of chopped up some green manure, clover, lettuce, etc.), one or two table-spoons; and when lead arsenate, one level full; thoroughly mixed, will need in small heaps about and the borders of fields with beneficial results.

For best results with potatoes should be fairly rich. If a per acre applied in the fall, one. I have also found that will pay good profits on fertilizer, provided a large application is given to make a soil. I have found that at least 600 lbs. of per acre to make any difference in the yield. A per acre, however, increased and resulted in increased work out of only four per cent of row and a slight increase yield will easily pay for it. Maynard, Leamington, Ont.

HORTICULTURE

Seasonable Garden Work

STRAWBERRIES may be set out as soon as the ground works easily and the plants can be dug.

Small onion sets are just as good as large ones for growing bunch onions, and these are more to the quart.

Herbs that should be in every garden and that are easy to grow are mint, sage, and caraway.

Be prepared to spray the orchard this spring. There do it at the right time. If you can't do this, better cut out the orchard.

Onions that have been frozen over winter must be set as soon as they thaw out. As soon as they get soft they begin to decay.

Eat two potatoes instead of one and use less meat. You will be better off and the soldiers will have more bacon.

A few evergreens planted about the home this year will soon reach a size that will protect the home from winds.

Do not throw away hyacinth and narcissi bulbs when they are through blooming, but plant them in the garden or the flower border.

Sow radish seed with onion, parsnip, or carrot. They come up quickly and mark the row, making it easy to cultivate early.

Parsnips properly cooked are an excellent vegetable. They are easy to grow. Get fresh seed and plant them early. Cultivate well during the summer. They are not hurt by frost, either early or late.

Spiraea Van Houttei makes a good hedge plant that does not need clipping. Thunberg's hawberry is perhaps better because it carries berries in the autumn. It is not a host plant for rust.

If your order of nursery stock comes before you are ready to plant, heel it in for a few days. Cut the bundle open and spread out the plants in a trench, packing the dirt well about the roots. It is a good plan to cover half or two thirds of the shrub in order that it may not dry out.


Clean-up for Slugs

THE common garden slug, this slimy, slow-moving, repulsive mollusk of our gardens, ornamental, and lawns, promises to be unusually serious this spring.

Remedial measures are only partly successful against it. A general clean-up of all trash, crop remnants, bits of boards, etc., about the premises; the burning of destruction of grass along fence-rows and about the borders of fields followed by the application of air-slaked lime will do more than any one practice to control slugs. Many other insect pests occur in the same situations and will be destroyed at the same time.

If the clean-up is thorough, a poison bait, consisting of chopped-up leaves of some green succulent plant (kale, clover, lettuce, etc.), one quart; slugs, one tablespoonful; and white arsenic or lead arsenate, one level teaspoonful; thoroughly mixed, may be scattered in small heaps about cold frames and the borders of fields at planting time with beneficial results.

For best results with potatoes, land should be fairly rich. I use 20 tons per acre applied in the fall and plowed down. I have also found that potatoes will pay good profits on commercial fertilizer, provided a large enough application is given to make its effect felt. I have found last year that it took at least 600 lbs. of a 2-10 fertilizer per acre to make any appreciable difference in the yield. A thousand pounds, however, increased the yield and resulted in earlier maturity. This was out at only four cents per rod works out a slight increase in the yield will easily pay for it.—Douglas Kaynard, Leamington, Ont.



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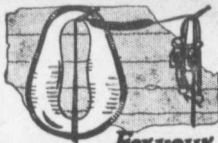
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SHEEP AND SWINE

The Cost of Pork Production

THE unprecedented price of pork for the past several months naturally causes the consumer to question whether or not the rise is legitimately due to increased cost of production or to manipulation by the much abused middleman. The producer himself is frequently uncertain as to the actual cost of production when the various factors influencing costs have been accounted for. Indeed the charges against young pigs at six weeks of age, and the maintenance of the dam is properly charged and where present feed prices apply, where so cheap by-product or refuse is available, and particularly where only one litter per year per sow is raised, is greater than many swine growers suppose.

The following figures are available from swine breeding operations at the Experimental Farm, Ottawa, and elsewhere on the Experimental Farms System and may throw some light on the question. To arrive at the cost of young pigs the feeding costs of not only the dam, but also the granddam are necessary. In other words the full maintenance cost of the young sow, together with her milking period charges, should be figured to arrive at the cost of the first litter. For succeeding litters a pro rata charge for each individual of the litter, should be made of feeding and breeding charges incurred while the sow was carrying and later suckling the litters up to weaning time. Feed cost to raise a gilt to first farrowing \$28.37
Breeding charges cost to feed while suckling litter 10.00
Total cost of first litter \$38.37

Cost per pig at weaning (7 in a litter) \$ 5.48
If the cost were figured on the market value of the young sow, the cost of the litter per pig would be considerably higher. If sold after raising one litter the sow might be expected to bring about \$35.00, or to nearly pay the total cost of her first venture. If retained at a brood sow, bred shortly after weaning, and subsequently raising a second litter of seven pigs, the cost per pig would be in the vicinity of \$32.

The average cost per pig may be safely figured at \$3.00. Seven raised pigs per sow is a high average, numerous individual cases to the contrary.

Costs Then and Now.
Several years ago at the Ontario Agricultural College, it was estimated that where all incidental feeding, maintenance and breeding charges were considered, young pigs could be raised to six weeks at a cost of \$1.27 each, with an average litter of six and one-half pigs. Meal was charged at the rate of \$20.00 per ton; skim-milk, \$3.00 per ton; and straw, \$2.00. Fresh pig prices would be \$50.00; \$4.00 and \$3.00 respectively at the lowest estimate and would explain the fact that the foregoing figures are so much higher than the Guelph findings, which were practically similar to those shown at the Central Experimental Farm at that time.

The cost to produce pork from these young pigs against which feeding charges at the average rate of \$3.00 each must be levied at six weeks of age, will vary widely with the methods of feeding. Figures from the Experimental Farms records would indicate that four pounds of meal, or the equivalent in other forms of food, per pound gain would be a safe basis. In the case of the bacon half this would amount to the present feed prices to \$13.00 to \$15.00 per pig. Adding to this the \$3.00 charge up to weaning time the total

feeding charge would be from \$16.00 to \$18.00. Where skim-milk and pasture were both available to replace meal, \$15.00 might be taken as a fair feeding charge.

While the average overhead charge is relatively small in the case of the farmer who keeps but a few pigs, it is capable of wide variation, depending entirely upon the intelligent understanding of the owner concerning the principles of swine husbandry. A range of from 20 to 60 per cent. of the feeding charges might be allowed. In most cases the lower figure might fairly be applied.

These estimates include only feeding and breeding charges and are exclusive of labor, depreciation, and overhead charges generally. The element of risk, much in evidence in swine raising, is also omitted. Under proper management there is a fair profit in hogs. To the consumer and the prospective swine grower the foregoing figures however, would indicate that such profits are not excessive.

Dip Your Sheep This Year

IN the face of the high cost of feeds and the ever-increasing necessity of more imperative than ever before in the history of our sheep industry, that all handicaps such as the feeding of external parasites be eliminated as far as possible, it is next to impossible for sheep to make progress when covered with ticks and lice which annoy them continually. It is impossible to estimate the loss of feed and the depreciation in flesh when a flock is infested. One may be certain, however, that a great portion of the feed consumed by the sheep is taken up by these parasites.

A flock free from ticks and lice is the best insurance towards the better production of wool. The continual rubbing against fences and racks, causes a loss of wool and damaged fleeces which are down in price. Dipping should be regularly practised at least once a year, and better twice a year. The sheep should be dipped in the spring as soon after shearing as weather permits; in the fall, before the arrival of cold weather. This will not only free the flocks from ticks and lice, but also tends to keep them free from any skin disease. Even though no disease or parasites be present sheep should be dipped as a means of prevention and it stimulates the growth of the wool to some degree. Small flocks can be dipped in vats or other suitable utensils on the farm, but in the case of large flocks a regulation galvanized iron or cement tank will be found much more satisfactory.

Community Dipping Outfit.

The initial cost of a convenient dipping outfit would be the greatest drawback to the small owner, who realizes the necessity of dipping at least once a year. Does not seem his way clear to go to that expense, for a flock of from ten to twenty-five. By the small flock owners in a district combining and having a dipping tank jointly owned, it can either be placed at a convenient centre, all flocks for a radius of from two to four miles being driven to the centre and dipped on a certain day, or each sheepman using the tank in turn on his own place. By the latter method it costs more for dipping fluids, as the smaller the flock dipped the greater the waste, but in either case the cost of dipping is greatly reduced.

It has been preached from the platform that the small farm, well tilted, will beat the large farm as an income maker. I once believed that myself. This would not be now. Increase is the prime factor in determining the size of the farmer's labor income. —A. Leitch, O. A. C. Guelph, Ont.



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LET TALK IN THE

On Thumbs

THUMBS have not had their place in our polite literature fact they have been neglected. And like the tinpot knight who was on the quest of derring do, old monks and barons of tordate pates and divid. g with the down frodden you and serewich coming out in thumbs.

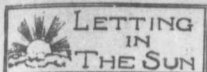
Were I a real novelist I on fingers, not thumbs. It is they may taper if he may find in my lady's work long tapering fingers. The ally has square, honest fingers, they may taper if he. At any rate they are strong occasion they can fix them traps of steel on the thumb. Yes, a man with long fingers, though they do be sure.

Oh everyone in a story has But thumb! Look, how you be of thumbs in a no ought we know to the con folks are a thumbless ree thumbs crop they may leave the freshly "busted" safe or lock Holmes may deduce CROTT's in-turning thumbs hie propensities. They're also W. C. T. U. writers as sign which employees find cigars previous to denying the pink the desirable character these two exceptions merely rate, that thumbs are not de the anatomy of a "character."

But, despite the fact that be based upon thumbs writers, they are tremendous appendages. I can speak witly, not to mention feeling subject, for last week I cut on my right hand and had t in a sling. It was then that oh how useless would be a farmhand. For instance, I often heard people speak of a try on to a bolt with their s. This for yourself and you what an important part is the thumb. Try putting a ne of the Ford, with your thumb as mere spectator, or try opening of given feed, or untie a "h with your "fingers." You y decide that it's not so bad finger. You have plenty of take its place while it rest but a thumb is different. A thumb is like the vacant ch server, etc. I will admit that is not built for work, but it's handy—for it is set in fingers.

There's the point. It is Do not imagine that I can se points in fingers. I have th respect to their. While a h fingers is not up to much, thumb is out of order, on would, you might have a dose and if your hand were finger hand in a sorry plight indilicate each other, and their pi pose their place.

Have you ever noticed how a tree is felled by two chop right and one left-handed? along well because their gift pared. The same is true of looking over my little circle, climate friends, I find that the why characteristics in con find also that those character to be found in my neck, can in almost every instance my are my opposites. They see tragic side of life; they thin before they speak; and, as why, Ven. I have a little more than — while I am opposite way—and, most I confess reader, as honestly as a rail f it is not that one del



On Thumbs

THUMBS have not had a large place in our polite literature. In fact they have been shamefully neglected. And like the brave old tinpot knights who used to fare forth on quests of derring do, rapping rich old monks and barons over their aristocratic pates and dividing their spoils with the down trodden yeomanry, I am herewith coming out in defence of thumbs.

Were I a real novelist I would write on fingers, not thumbs. They always do. Every heroine in the novels you may find in my lady's work basket has long tapering fingers. The hero usually has square, honest fingers, but even they may taper if he be artistic. At any rate they are strong, and on occasion they can fix themselves like traps of steel on the throat of the villain. Yes, even the villain has fingers, though they do twitch, to be sure.

Oh, everyone in a story has fingers. But thumbs? Lord love you, where have you heard of thumbs in a novel? For aught we know to the contrary book folks are a thumbless race. True, thumbs crop out in detective stories in the form that they may leave prints on the freshly "busted" safe or that Sherlock Holmes may deduce from the crook's in-turning thumbs his thieving propensities. They are also used by W. C. T. U. writers as sign boards on which employees find cigarette stains, previous to denying the prospective clerk the desirable clerkship. But these two exceptions merely prove the rule, that thumbs are not desirable in the anatomy of a "character."

But, despite the slight which have been heaped upon thumbs by our writers, they are tremendously useful appendages. I can speak with authority, not to mention feeling on this subject, for last week I cut the thumb on my right hand and had to carry it in a sling. It was then that I found out how useless would be a thumbless farmhand. For instance, you have often heard people speak of screwing a nut on to a bolt with their fingers. Try this for yourself and you will see what an important part is played by the thumb. Try putting a new tire on the Ford, with your thumb acting as a mere spectator, or try opening a sack of gluten feed, or untying a "hard knot" with your "fingers." You will likely decide that it's not so bad to cut a finger. You have plenty of others to take its place while it convalesces, but a thumb is different. An absent thumb is like the vacant chair which never, etc. I will admit that a thumb is not built for style, but it's awfully handy—for it is set opposite to the fingers.

There's the point. It is opposite. Do not imagine that I can see no good points in fingers. I have the highest respect for them. While a band of fingers is not up to much if your thumb is out of order, on the other hand, you might have a dozen thumbs and if your hand were fingerless, you would be in a sorry plight indeed. Both have their place, and their place is opposite each other.

Have you ever noticed how quickly a tree is felled by two choppers, one right and one left-handed? They get along well because their gifts are opposed. The same is true of friends. In looking over my little circle of intimate friends, I find that they possess many characteristics in common. I find also that those characteristics are set to be found in my make-up. In fact, not to be found in my make-up. In fact, in almost every instance my friends are my opposites. They see the more tragic side of life; they think deeply before they speak; and, as for looks, Venus or Adonis have nothing on them—while I am opposite in every way—and, must I confess it gentle reader, as homely as a rail fence.

It is not that one deliberately

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chooses friends because of their negative characteristics, but that when people rub against each other, those who are temperamentally opposite, are attracted to each other in the same way as are two objects, one charged with positive and the other with negative electricity. And it is rightly so. Two serious persons left in contact with each other would soon be in the dilemma. Two jokers thrown together would soon be in the lunatic asylum. Mix these two classes and they strike a happy medium, with the serious one joyful and the cheery one depressed. The theory of opposites finds its largest acceptance in the matrimonial field. For instance, I am poor as a church mouse; I should, therefore, marry a wife as rich as the Queen of Sheba. It would not, however, be wise to mix temperaments that are too radically opposed. But a finger and thumb combination is the most desirable bet. When two souls are starting out on such a long, long journey together, they cannot afford to become tiresome to each other, or to be so eager to supply the home with joy and the other with sorrow, as Blake has it.
"Joy and wee are wroten fine,
A clodding for the soul drivin'."
N.B.—And if the young couple are opposite in makeup, both of their characters will be rounded out and they will live happily ever after—perhaps.

FEEDERS CORNER

Sam Kay
Ration for Cow on Test

I HAVE a cow I would like to test. Existing on the good stuff she gives a good meal ration that would be suitable without any feeders. Good clover hay, ensilage, bran, oat chop, gluten meal, cottonseed meal, and milk feed. I have used it to get and what rate would I need to mix it?
—It is doubtful if the subscriber inquiring will be able to get the best feed without roots, for not only have roots a very considerable food value, but, owing to their tonic effect and their influence on the digestibility of the grain, as well as the mild laxative effect, roots are very essential in a test ration where the cow is being forced to a limit of consumption and production. To supplement the shortage of roots, I would suggest one feed daily of sugar beet pulp. This pulp could be thoroughly moistened with warm water and allowed to stand for an hour or more before feeding. Beet pulp will take up about four times its weight in water, and makes a palatable succulent substitute for roots, especially if a little molasses is added thereto. A very good test ration with the feeds mentioned might be composed of bran, 200 lbs.; oats, 150 lbs.; silage feed, 150 lbs.; cottonseed meal, 150 lbs.; and linseed oilcake meal, 150 lbs. This grain ration fed as required with an addition of good clover hay, ensilage and salt, should make a test ration well calculated to be satisfactory to the average cow on test.—E. S. A.

Good Feeding—Small Calves

A WEEBIE in a United States dairy paper complains that his calves fed on large quantities of milk are so large as calves from the native stock. In localizing his own calves liberally and in the ration was a considerable proportion of cottonseed meal. He cut out the cottonseed meal and claims to be getting better calves as a result. What I would like to know is this: Does the feeding of the cottonseed meal affect the size and vigor of calves? Does heavy feeding of any kind result in the same results?—C. L. Peel, Co. Ont.
So far as feeding of cottonseed meal to cows would not influence the size or vigor of the calves at birth unless this were carried to the extreme of seriously injuring the health of the cow while pregnant. Unoubtedly, cottonseed meal fed in excessive quantities to pregnant typical cows would induce the typical cottonseed poisoning so

common in the excessive use of this feed with any class of stock. However, if used at the rate of one to two pounds for the average milk cow, or not exceeding four pounds to a large, heavy-producing fresh cow, it should have no injurious effect, providing, of course, it is properly mixed with other material. Undoubtedly, the first injurious effect of the excessive use of cottonseed would be on the cow. Overfeeding the dairy cow with any feed stuff which weakens development of the digestive system or excessive fatness undoubtedly does affect to some extent the size and vitality of the calf at birth.—E. S. A.

Value of Annual Pasture

A SMALL field of summer pasture saves the farm a very valuable asset in many ways. If the ordinary pastures are short and dried up during July and August, the piece sown to summer pasture will tide the stock over the summer period. If the ordinary pasture is good, then the summer mixture can be cut for hay or allowed to ripen as a crop. It is an excellent crop with which to seed down, especially on pasture or cut early, and may be sown after the regular spring seeding is completed.

Summer pasture mixtures were sown on a number of farms last year with good results. In connection with the Illustration County work conducted by the Commission of Conservation in Dundas county, Ontario. On one man's farm five acres were sown as follows: one acre to oats and vetches, one acre to a mixture of wheat, oats and barley. This field enabled the farmer to save for hay another five-acre field, which gave a yield of 10 tons. The summer pasture grew so well that, when ready for use, it was fenced across and only half of it pastured. The two and one-half acres, however, provided the main pasture for 24 cows during July and most of August, and caused an increase of 35 pounds per day in milk yield, which held up for more than a month. The other pastures were short. The other half of the field yielded six loads of mixed feed cut green and made into hay. The field was seeded to clover and timothy, and the result was winter found it in splendid condition with a good catch of grass and clover.—F. C. N.

Potatoes as a Hog Feed

AS A growing or as fattening ration potatoes alone are not an efficient hog feed. Grain should be fed with them and usually it will pay to add a protein supplement such as milk meal or tankage. Grain is the standard hog feed. Here are three such values: The Denmark station says 4 pounds of potatoes will replace 1 pound of mixed grain; the Wisconsin station says 4 1/2 pounds of potatoes will replace 1 pound of cornmeal; the Oregon station reports that 5 1/2 pounds of potatoes are equivalent to 1 pound of barley. On the basis of the Wisconsin results, \$1.50 corn is as cheap a feed as potatoes at 35¢ cents a bushel. Or a bushel of potatoes will replace 1 1/2 pounds of corn. In a recent test by the United States Department of Agriculture at Beltsville, Md., potatoes were compared with corn. To replace a pound of corn 1 1/2 pounds of potatoes were required. Moreover, the potato ration required for each 100 pounds of pork produced 27 pounds more of protein supplement than was required on a corn ration.
Feed grain with potatoes. One plan is to mix grain and potatoes as soon as the feed is cooked, and allow it to steam until cool enough to feed. Use from one-sixth to one-fourth as many pounds of grain as of potatoes. Any grain is good. Add milk if possible. If not available, add one pound of oilmeal or half a pound of tankage to each fifteen pounds of grain-potato mixture.—R. C. Asby.

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Letters to the Editor
"The One Man Puller"
EDITOR, Farm and Dairy
It entirely unnecessary for this letter to be in a recent issue, I read in "English and Drama" is not true of England, Wales, as a whole, though true of some low gear part of some of it. All my 35 years' life in the farmers' markets and of things I never saw as innocuous as I have seen in here and I never heard of ing and swearing and sin. More than that. These English who are not "dame" (Canadian boys don't talk) and his son Jesus C. Hips in the profane way in Canada. England, then good to judge Canada by. She will look for something and try to improve it. I am not without uncharitableness, letter like that appears in subscription and as man—G. L. Algoma Dist., Ont.

"Is Thorough Necessary?"
EDITOR, Farm and Dairy
I please in adding a prohibition to the other an cultivation by Mr. W which appeared in the issue of 7th July. I believe a three-acre field of oats in the seed got but one ear after plowing. I broadcast seven and one-half "41" oats to the three and was out stubble and near the end of June I say on a five-acre field was to be worth cutting. I seen a spear of timothy or seen, only natural grass poor. On the morning of started a three-horse gang two-horse plow at this time about half the field was in the afternoon while I were at the plowing. I seed the field with oats broadcast (I am an expert here) three o'clock in the morning after harrow after we while spring tooth harrow with horse team continued plow undown all finished about I finished the sowing. horse team finished plow acre field, and the harrow of one scrape harrowing the seed.
That was all the harvest got. On Monday morning, I rolled the field with roller, (as I also rolled acre field spoken of above) sowing plow made nice job seed. There was seed sowing between the The crop grew to be an excellent. On October 3rd I cut the binder. It resulted in shocks—a fine field of spring feed—as it cared well in spite of the weather. Another thing too much seed. I only 3 bushels of oats on this five less than one and the horse per acre. The seed got through, being a good weed bushel. Two bushels also is enough for an MacDonald, Kings Co., P.E.I.

Have any of our folks ever of a wooden windmill? A reader would like to have and a list of material for the night. Farm and Dairy glad to recompen and such diagrams and describe such a windmill.

Letters to the Editor

"The One Dark Blot"

EDITOR, Farm and Dairy.—I think it entirely unnecessary to publish such letters as the one you have in a recent issue. I refer to the one on "England and Drinkennes." That is not true of England, Scotland or Wales, as a whole, though it might be true of some low gambling den in a low part of some of the towns. But in all my 35 years' life in England—going to farmers' markets and all that kind of thing—I never saw as much drinkennes as I have seen in my six years here and I never heard as much cursing and swearing and bad language. More than that. These wicked (?) English who are to "dam" your clean Canadian boys don't take the name of God and his son Jesus Christ on their lips in the profane way that I hear it in Canada. England, thank God, is too good to judge Canada by her worst. She will look for something to praise and try to improve where necessary without uncharitableness. If another letter like that appears I will stop my subscription and as many more as I can.—G. L. Algoma Dist. Ont.

"Is Thorough Cultivation Necessary?"

EDITOR, Farm and Dairy.—I take pleasure in adding a word of approbation to the excellent article on cultivation by Mr. W. C. Good, which appeared in the March 28th issue of Farm and Dairy. Last summer I grew, I believe, the heaviest three-acre field of oats in these parts. The seed got but one scrape of the harrow after plowing. It was sown broadcast, seven and one-half bushels of "41" oats to the three acres. The land was oat stubble and second crop. Near the end of June I saw that the hay on a five-acre field was not going to be worth cutting. There was not a spear of timothy or clover to be seen, only natural grasses and that poor. On the morning of June 23 I started a three-horse gang plow and a two-horse plow at this field. At noon about half the field was plowed and in the afternoon while the two teams were at the plowing, I began to sow the field with oats broadcast by hand. (I am an expert hand sower). At three o'clock I set the two-horse team harrowing after me with a 16-line spring tooth harrow while the three-horse team continued plowing. At sundown all finished about together. I finished the sowing. The three-horse team finished plowing the five-acre field, and the harrow team finished one scrape harrowing and covering the seed.

That was all the harrowing the field got. On Monday morning, June 24, I rolled the field with a heavy roller, (as I also did with the three-acre oat field spoken of above). The gang plow made such nice work, 5x9 inch sod, that there was no occasion of seed falling between the furrows. The crop grew to be an excellent one. On October 3rd I cut the crop with the binder. It resulted in 167 stooks or shecks—a fine field of splendid cow feed—as it cared well in stook.

Another thing farmers are sowing too much seed. I only sowed nine bushels of oats on this five-acre field, less than one and three-quarter bushels per acre. The seed was extra good though, being 41 lbs. per measured bushel. Two bushels of good oats is enough for an acre.—J. A. MacDonald, Kings Co., P.E.I.

Have any of our folks ever constructed a wooden windmill? An Ontario reader would like to have directions and a list of material for a mill 30 feet high. Farm and Dairy would be glad to recompense any reader for such diagrams and description of such a windmill.

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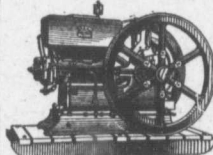
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Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Farmers and Farmers

AL over America, "agriculturists" are dividing into two classes. In the first group are those who own farm land but who do no work on it themselves, either leasing it or depending on hired labor. The other group is made up of working farmers—men who own their own farms, with or without mortgages, and who are struggling against the burden of indirect taxation and the monopolies that indirect taxation creates, to make an honest living in the most essential and honorable of all industries. They are the farmers whose children go to the district schools and who take a deep personal interest in the improvement of the neighborhood and in the maintenance of its churches.

Fortunately, the latter group of farmers still predominate in Canada. Even here, however, the proportion of tenant farmers is slowly but surely increasing, and many great landed estates have already been established. In the United States there are whole states in which tenant farmers are in the majority and corporation farming is an established institution. Just here, conflicting are the interests of these two groups of farmers, well illustrated by recent developments in the State of California, where the two classes of farm land owners have come to an issue over the question of Chinese labor. The bona fide farmers don't want Chinese for their neighbors. They know that the tenant system of farming is growing rapidly, and they know that men who have no personal interest in the neighborhood will not hesitate to lease their land to Chinese, who would soon outnumber the whites in that locality and ruin the neighborhood as a congenial home for themselves and their children. On the other hand, the land speculators, absentee owners and, real estate agents are adding their clamor to that of urban employers of labor and insisting on the importation of Chinese. In self defense, California farmers of the producer class have now joined hands with the labor unions of the cities in a powerful new organization known as "The California Union of Producers and Consumers."

It may be many years before we in any part of Canada are faced with so serious a situation as has developed along with tenant farming in California. The

tendency, however, slow though it be, is in the same direction. Our land laws and our systems of taxation are the same as theirs. We have no special Providence watching over our destinies. If we are wise, we will learn a couple of valuable lessons from the experiences of our neighbors in the south-west. The first is the essential unity of interest between bona fide farmers and the laboring men of our cities; the farmer makes his income from his labor, rather than from his capital invested. The second lesson is the danger of a system of taxation which makes it easy for capitalists to obtain control of farm land. The logical remedy for this is a change to a system of taxation which would make it impossible to profitably hold land out of use and thereby exploit those who must work the land for a living. Such a system is the taxation of land values recommended by all the great farmers' organizations of Canada. The real problem is summed up in this question: Do we want real farmers in Canada or are we going to develop the system of absentee land ownership which has cursed so many older lands?

The Swing to Grain

WELL read, observant dairy farmer remarked to us a day or two ago that if the war continued much longer, dairying would come out hard times. He commented on the ever increasing price of grain without compensating advances in the price of dairy products. Labor, too, he thought, had advanced out of proportion to its earning power. Both of these factors tend to induce dairy farmers on good land to reduce their herds and swing to grain. "But the swing back to dairying will be even stronger, once the war is over," he added. "I find that such is the history of agriculture in all past wars—a swing away from live stock and then a swing back."

If we would add to our friend's predictions, it would be by suggesting that it is easier to swing to grain than it is to swing back to dairying. Building a dairy herd, a profitable dairy herd, is a labor of years. Dispersing it is the matter of a few hours and the assistance of a good auctioneer. We cannot emphasize too strongly, however, that if markets follow the usual course after the war, dairy and animal products will be at a premium on the grain market will be in a state of demoralization. The men who will then be in a position to profit by the greater demand for dairy products will be the man who has held on to his herd. We cannot advise dairy farmers, in view of the present labor situation and the high price of grain to increase their herds. We believe, however, that all dairymen will be well advised to "carry on" and keep their herds well up to normal. If some of the milk cows must be disposed of, then be sure that there are equally good helpers coming along to take their place.

There is one exception to this rule—the man with lots of natural pasture and whose land is not specially adapted to grain growing could find no better time than now to profitably increase his dairying operations.

The Happy Medium

HARRY THAW had had to work for a living, he would probably have been a very decent, respectable fellow."

With this illustration, Dr. J. G. Rutherford, Canada's "biggest farmer," announces his belief in the doctrine of work. We all agree with him; a certain amount of work is good for all, even the boys and girls in school. There is nothing like work to keep the youngsters out of mischief, and it aids in their mental and spiritual as well as their physical development. Come to think of it, the greatest curse of the city youngster is idleness; enforced idleness because there is nothing to do.

And the greatest curse of too many country children is so much work that it becomes drudgery. And drudgery, to the child, is soul-destroying. It stunts development, mentally and physically. It is a common thing for the country child, particularly the boy, to be taken out of school young; he is needed to help at home. The majority of school children in rural Canada never get so far as to write their entrance examinations. Dr. Rutherford states that eighty-five per cent. of the boys and girls who attend the agricultural schools in Alberta have not passed the third

grade in the public schools. Fortunately, the more easterly provinces can make a better showing, but not by any stretch of the imagination could the showing in any province be considered satisfactory.

Here we have the two extremes: too little work for the city youngster; too much for the country boy or girl. There is a happy medium where manhood and womanhood reaches its strongest, sanest and best development. This happy medium is most easily attained in the country, and we are glad that an increasing proportion of rural parents are studying the problem of child development. For the child of to-day is the citizen of to-morrow, the maker of the future destiny of the nation.

The Next Fuel Shortage

THE Dominion Fuel Controller calls attention to the advisability of laying in a stock of wood fuel for use next winter. He urges municipalities to stock up with wood wherever possible, and it is even suggested that city and town councils acquire wood lots and cut wood at a municipal enterprise, not for profit, but as a safeguard against a more serious fuel shortage next year than the one from which we suffered this past winter. Farmers who have wood lots are urged to depend on their own fuel largely, if not altogether, for the next winter's use.

Eastern Canada cannot afford to overlook the fact that a very considerable proportion of its coal supply comes from the United States. The coal shortage of that country has been officially estimated to be not less than 50,000,000 tons, and Federal and State fuel administrations have been appointed to assist in solving the very serious problems which have resulted from this great shortage in the production of coal. Authorities consider that this shortage will continue for the duration of the war, and the situation is bound to affect Canada seriously. The obvious thing for us to do, therefore, is to consider how far our great forest resources may be utilized to meet the conditions that may possibly face at least the eastern portion of the country during the next winter. As individuals, we farmers can play an important part by each one of us making an effort to secure our own fuel. The Fuel Administration, however, will do well not to forget that large sections of Ontario, and of some of the other provinces as well, have practically no wood lots left, and the limitation of coal deliveries in these districts would work a serious hardship.

"Red Triangle" Fund

WHEN the war broke out, the Young Men's Christian Association was almost wholly a city organization, depending on city money for its support and on city young men for its membership. In the last three and one-half years, however, the magnitude of its war services has made the Y.M.C.A. a national asset of the first order and deserving of the hearty good will and financial support of every citizen in every community in Canada. When the first Canadian contingent transferred its training camp from Valcartier to Salisbury Plains, the Young Men's Christian Association went with them. When their boys went to France, the "Red Triangle Huts" immediately became the popular gathering place, where, amid healthy Christian surroundings, entertainment and reading matter were provided, and it was here, too, that hundreds of thousands of letters have been written to the folks back home on Y.M.C.A. writing materials. The environment of these huts has held many a boy to the path of clean living when the temptations to which all soldiers are subjected would otherwise have led him astray. And when the boys went forward into the trenches, the sign of the Red Triangle went with them, and Y.M.C.A. workers dispensed hot tea and coffee in the very front line trenches during the heaviest bombardments.

The leading men of all the Entente nations have expressed their warm admiration of the work accomplished by this association. But all of this work requires money. The Canadian Y.M.C.A. is aiming to raise \$2,250,000 in the three days, May 7-9. They are appealing for the support of every Canadian in the raising of this fund. They are asking for the contributions of the people who live in the country as well as those who live in the city. An announcement of this campaign is given elsewhere in this issue. Look it up and consider carefully the claims of "The Red Triangle" fund on your generosity.

A Million Dollar Business

NE of the best of the business opportunities for the farmer is the Fraser Valley Milk Producers' Association. While this is only one of the other word has already made up the dairy world. In months of its existence the 345 farmer members have received by the farmers \$1,236, with an average \$2 per member still from the reserve.

It is about four years ago that a group of producers was made to order. Producers of the district milk prices in 1933 had been set by the milk very little attention paid of the producers. The association was not a success, but after, when the new organizers, 89 to 90 per farmer signed up contribute their own money to the association. It was each farmer agreeing share for every can of supplied; in other words, an amount supplied would run to two cents \$100 worth of stock. The association has, after year's operation, had over \$700,000. Of this \$460,000 is in the milk distribute Vancouver.

Large Equipment At the present time the of the association is there being \$2,484,486 in machinery. The department runs to about 100 invested in cans. Additional working capital is about their members, they have to use of feed, and it costs \$10,000 working capital. This turnover is normally, the net cost of ing about \$13,500 per makes it about four-fifth cost butter fat. It was of the association has have producers about 10 cent butter fat increase over have been obtained in marketing, so that the members have been big toly. On this assumption, capital investing \$50 in the will receive \$3 interest for his investment. He will more for a can of milk test cost, and \$36.50 on the a total of \$185.00 net; 50¢ investment for the covering a period of one year.

Will Get More Capital At the annual meeting capital will be provided to the extensions in the handling the surplus milk purpose they are asking serve for distribution, \$36 divided, but be in the stock. It is not difficult to that with such an admiral. Little difficulty was experienced the members during fall on three-year terms contract. This long period the consolidation of the fo association and its establish permanent foundation.

The new secretary of Farmers of Alberta is Mr. H. H. Brown, who will succeed secretary Dr. F. H. Brown, who resigned recently. Mr. H.

In Union There is Strength

A Million Dollar Cooperative Business

ONE of the best examples of successful co-operation among farmers is furnished by the Fraser Valley Milk Producers' Association. While this association has only been organized twelve months, it has already made a name for itself in the dairy world. In the first ten months of its existence it paid out to its 948 farmer members over a million dollars. In fact, the average amount received by the farmers for this period was \$1,286, with an average of almost \$42 per member still to be divided from the reserve.

It is about four years since the first attempt was made to organize the Milk Producers of the district. Up to that time milk prices in British Columbia had been set by the milk dealers with very little attention paid to the views of the producers. The first attempt was not a success. A year ago, however, when the new organization was suggested, 80 to 90 per cent. of the farmers signed up contracts to supply their entire produce for the year to the association. It was financed by each farmer agreeing to take a \$50 share for every can of milk which he supplied; in other words, if the average amount supplied by the farmer would run to two cans he would take \$100 worth of stock. Only \$20 per share of this was paid into the association, and the remaining stock was taken up by deduction from the milk cheques for each month. As a result, the association has, after less than a year's operation, a well-stocked capital of over \$76,000. Of this \$40,000 is invested in the milk distribution plant in Vancouver.

Large Equipment.

At the present time the equipment of the association is considerable, there being \$23,484.46 invested in plant and machinery. The delivery equipment runs to over \$4,000, and \$6,400 is invested in cans. Altogether their working capital is about \$75,000.

In addition to marketing the milk of their members, they have also gone extensively into the cooperative purchase of feed, and it requires about \$19,900 working capital for this one item. This turnover is handled economically, the net cost of operating being about \$13,500 per year, which makes it about four-fifths of one per cent. butter fat. It was estimated that the association has obtained for the producers about 10 cents per pound butter fat increase over what would have been obtained in competitive marketing, so that the results to the members have been highly satisfactory. On this assumption, an individual investing \$50 in the share capital will receive \$3 interest for one year on his investment. He will receive \$145 more for a can of milk testing four per cent, and \$36.50 on the distribution, or a total of \$185.00 net profit on the \$50 investment for one can of milk, covering a period of one year.

Will Get More Capital.

At the annual meeting considerable capital will be provided to take care of the extensions in the city and for handling the surplus milk. For this purpose they are asking that the reserve for distribution, \$36,370, be not divided, but be added to the capital stock. It is not difficult to understand that with such an admirable showing little difficulty was experienced in retailing the members during the past fall on three-year instalments of a one-year contract. This long period will permit the consolidation of the forces of the association and its establishment on a permanent foundation.

The new secretary of the United Farmers of Alberta is Mr. H. Higginbotham, who will succeed the former secretary, Mr. P. P. Woodbridge, who resigned recently. Mr. Higginbotham

has had an excellent training for his new position. For some years, he and newspaper training in England and later in Alberta. He spent two years at the Olds School of Agriculture, Alberta, and during the last three years has had an editorial and advertising position on the "Globe" of Winnipeg. He is about thirty years of age. Mr. Higginbotham thoroughly understands agricultural conditions in the West, as well as the economic problems that must be solved if the welfare of farmers as a class is to be best promoted. He is acquainted with the leaders in the farmers' movement in Canada and is an energetic and tactful man. Ere long he should be one of the leaders in the farmers' movement.

Big Crop of Potatoes

(Continued from Page 4.)

seed to the acre, cutting the seed to two crows in two ounce pieces as near as we can. Our large yields may be explained in part too by close planting. We never have the rows more than two feet apart and drop the seed 15 inches apart in the drill.

"And how about the preparation of your soil?"
"We always get the land in the very best of shape before we plant. Sometimes the land is plowed and manured in the fall; usually it is plowed. This last year we manured in the spring, and it has been our experience that spring manuring does not cause scab as some authorities claim. Mr. Raynor, for instance, was fearful of scab, but when he saw my potatoes in the cellar, he admitted that he had never seen a cleaner lot. We always plow in the spring and work the land thoroughly."

Planting Methods.

"When it comes to planting, we have a way of our own. We mark the rows out with a hand-drawn marker and then put the potatoes in with a hoe. A man can go along chopping out the holes in two rows at almost an ordinary walking pace. The seed is dropped in those holes three or four inches deep and then we cover with a plank drag. We harrow frequently until the plants are up a couple of inches, or so that we can see the rows nicely. Then we start the cultivator and cultivate every week or ten days until the crop is taken out."

"The Irish Cobbler is an early variety, and we plant it as early in the spring as possible. Last year we planted on April 13th, and dug our first potatoes for market on the 12th day of July. Our main crop, however, was not put in until the first week in May. We grow Irish Cobbler for both early and late crop potatoes, and can see little advantage in growing the later varieties."

Mr. Williams does not spray for blight. He once sprayed for three successive years, but in those two years there was no blight in the neighborhood, and he has not troubled himself with it since. This he accounts for, in part at least, by the early date at which his seed is in the ground. He also grows his potatoes in the same ground year after year. He does not claim that this is the best plan, but it is necessary on his small acreage.

The heavy manuring, of course, will tend to keep the soil in good physical condition, and there is no danger of the muck running short of humus. The main point which Mr. Williams wishes to emphasize is the value of manure seed. He intends to continue his tests with New Brunswick versus home grown seed again next year.

Disking stubble land before plowing will result in a better seed bed and a heavier crop. There are no air spaces under the furrow slices.

RIGHT NOW IS THE TIME

When You Need a Silo and right now is the time to arrange for its erection



RIGHT now if you had a silo you would not only be getting 25% more milk, but you would be spending a great deal less for feed. With cream and milk at present prices, you must appreciate your need of a good silo more than ever, because there never was a time when good cows, properly fed, would return to their owner as great a profit as they do today.

Right now is the time when an Ideal Green Feed Silo, filled with rich, juicy, milk-producing silage, would save your worrying about feeding so much high-priced grain and would be putting more milk in the pail every day.

Right now is the time to prepare for bigger profits from your cows next winter. Our silo catalogue, which we will gladly send on request, contains a great deal of valuable information about silage and explains why the Ideal Green Feed Silo is the best to buy.

Write today for this catalogue.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separator and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butter-Workers.

Catalogues of any of our lines mailed upon request.

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

PEERLESS PERFECTION

A RUNAWAY HORSE

can't break a Peerless Fence. No fiery hall can make a dent in it, hogs can't push through the spaces.

It holds them all securely. Ask your nearest dealer to show you the Peerless farm fencing. See the heavy, crimped horizontal wires that allow for all expansion or contraction in extremes of temperature. See the famous Peerless lock that holds the intersections in a firm, non-slippable grip. See the Peerless farm gates. Your dealer guarantees the Peerless to give satisfaction and we stand back of him unconditionally.

Letters Like These From Halifax to Vancouver

The Banwell-Hoxie Wire Fence Co., Ltd.

Dear Sir: I am writing to inform you as to the strength of your PEERLESS Javelier Chain. Mine is four feet high. It is very strong, each weighing 100 lbs. The fence will hold the fencing in place. I have put up four rows of the same and it has held up very well. I have used it on my farm, and it has held up very well. I have used it on my farm, and it has held up very well. I have used it on my farm, and it has held up very well.

JOE ROBERTS

Berry Centre, S. C.

The Banwell-Hoxie Wire Fence Co., Ltd.

Dear Sir: I have handled your fence for four years and find it a good, strong and durable fence, and find that the attraction is the same. In reference to the same, I have put up four rows of the same and it has held up very well. I have used it on my farm, and it has held up very well. I have used it on my farm, and it has held up very well. I have used it on my farm, and it has held up very well.

DAVID CUMMINS

Brunswick, Ont.

The Fence That Saves Expense

It never needs repair. It is made of heavy top and bottom wires, but has the same amount of lumber used for the posts.

SEND FOR LITERATURE and address of nearest dealer. It also makes a complete set of ornamental fencing. Agents wanted everywhere.

THE BANWELL-HOXIE WIRE FENCE COMPANY, LTD.
Montreal, Quebec, Canada.
Peterborough, Ontario, Canada.
Vancouver, British Columbia, Canada.





DON'T fancy that you will lower yourself by sympathy with the lower class—
fancy: you cannot sympathize rightly with the higher, unless
you do with those.—*Rushin*

The Heart of the Desert

(Continued from last week.)

"I THINK animals come to the spring to drink," said Rhoda. "There were wet footmarks there when I went down to wash my face."

"Bully!" exclaimed John. "Wait now, let's watch."

The two dropped to the ground and peered over the edge of the upper terrace. The spring bubbled forth serenely, followed its shallow trough a short distance, then disappeared into the insatiable floor of the desert. For several moments the two lay watching until at last Rhoda grew restless. DeWitt laid a detaining hand on her arm.

"Hush!" he whispered. A pair of jackrabbits leaped up the trail, sniffed the air tentatively, then with forelegs in the water drank greedily. DeWitt's right arm stiffened, there were two puffs of smoke and the two kicking rabbits rolled into the spring.

"I'm beginning to have a little respect as the man of the party," said DeWitt, as he blew the smoke from his coil.

Rhoda ran down to the spring and lifted the two wet little bottles. John took them from her.

"If you'll find some place for a table, I'll bring these up in no time."

When DeWitt came up from the spring with the dressed rabbits, he found a little fire glowing between two rocks. Near by on a big flat-topped stone were set four water-tarthen bowls, with a brown water-jar in the center. As he stared, Rhoda came out of the building with interested face.

"Look, John! See what I found on a little corner shelf!" She held in her outstretched hand a tin jar no bigger than a wine-glass. It was of an exquisitely polished black. "Not even an explorer can have been here, or nothing so perfect as this would have been left! What hands do you suppose made this!"

But DeWitt did not answer her question.

"Now, look here, Rhoda, you aren't to do anything like starting a fire and luring these heavy jars again! You're not with the Indians now. You've got a man to wait on you!"

Rhoda looked at him curiously. "But I've learned to like to do it!" she protested. "Nobody can roast a rabbit to suit me but myself, and in spite of DeWitt's protests she spitted the rabbits and would not let him tend the fire which she said was too fine an art for his untrained hands.

In a short time the rich odor of roasting flesh rose on the air and John watched the pretty cook with admiration mingled with perplexity. Rhoda insisting on cooking a meal. More than that, Rhoda evidently enjoying the job! The idea left him speechless.

An hour after Rhoda had spitted the game, John, slight with comment as he looked at the pile of bones beside his earthen bowl.

"And they say jacks aren't good

eating!" he said. "Why if they had been salted they would have been better than any game I ever ate!"

"You never were so hungry before," said Rhoda. "Still, they were well roasted, now weren't they?"

"Your vanity is colossal, Miss Tuttle," laughed John, "but I will admit that I never saw better roasted." Then he said soberly, "I believe we had better not try the trail again to-day, Rhoda dear. We don't know where to go and we've no supplies. We'd better get our strength up, rest-

John rose and walked up and down restlessly.

"Rhoda, if a white man had done this thing I would shoot him as I would a dog. What do I care for a law in a case like this? We were men long before we had laws. Why should this Indian be let go when he has done what a white would be shot for?"

Rhoda looked at him keenly.

"You talk as if in your heart you knew you were going to kill him because he is an Indian and were trying to justify yourself for it!"

He turned on the girl a look so haunted, so miserable, yet so determined, that her heart sank. For a time there was silence, each afraid to speak. At last Rhoda said coolly:

"Will you get fresh water while I bank in the fire?"

DeWitt's face relaxed. He smiled a little grimly. "I'll do anything for you but that one thing—promise not to kill the Indian."

"The desert has changed us both, John," said Rhoda. "It has taken the veneer of both of us!"

"Maybe so," replied DeWitt. "I only know that that Apache must pay for the hell you and I have lived through."

"Look at me, John!" cried Rhoda. "Can't you realize that the good Kutele has done me has been far greater than that of John? Do you see how well I am, how strong? Oh, if I

the human soul appalled her. This was a DeWitt that the East never could have shown her. It sickened her as she realized that no words of hers could sway this man; to realize that she was trying to start with her feeble feminine hands passions that were as old a world-force as love itself. All her new-found strength seemed inadequate to solve this new problem.

CHAPTER XIX.

The Trail Again.

For a long time Rhoda sat silently considering her problem and John watched her soberly. Finally she turned to speak. As she did so, she caught on the young man's face a look so weary, so puzzled, so altogether wretched that the girl's heart smote her. This was indeed a poor return for what he had endured for her, Rhoda jumped to her feet with restoration in her eyes.

"Are you too tired to explore the ruins?" she asked.

DeWitt rose languidly. Rhoda had responded at last to the word "food" and he could need no mouth of care and quiet in which to regain his strength.

"I'll do anything you want me to—in that line!"

That John so carefully ignored the last phrase.

"Even if we're half dead, it's too bad to miss the opportunity to examine such wonderful things as this. You couldn't find as glorious a setting for a ruin anywhere in Europe."

"Oh, yes, you could; lots of 'em," answered DeWitt. "You can't compare a ruin like this with anything in Europe. What makes European ruins appeal to us is not only their intrinsic beauty but the association of big ideas with them. We know that big thoughts built them and perhaps destroyed them."

"What do you call big thoughts?" asked Rhoda. "Wasn't it just as great for these Pueblo Indians to perform such terrible labor in building this for their families as it was for some old king to work thousands of slaves to death to build him a monument?"

DeWitt laughed. "Rhoda, you can love the desert, its Indians and its ruins all you want to, if you won't ask me to! I've had all I want of the three of them! Let's how I hate it all!"

Rhoda looked at him wistfully. If only he could understand the spiritual change in her that was ever greater than the physical! If only he could see the beauty of those far lavender hazes! If only he could understand how even now she was heartless for the night trail where one looked up into the sky as into a strange opal! If only he knew the peace that had dwelt with her on the holiday ledge where there were thin and beauties too deep for words! And yet with the wistfulness came a abiding dwelling with it on your whole life as if it might be spent, when your daily life might where all the while you joying unbroken com Himself.

And observe especially that He said, "Come to with Me," but, "Abide in terrace was not only broken, but more complete. He opened His you to His bosom; He heart, to welcome you to ed up all His Divine f... He had offered to... into its fellowship, and one with Himself. There of meaning you cannot His words: "Abide in Me." And with no less ar... He had cried, "I have plead, had you not belie... Me." By every moti... eed you to come, di

"I say, John, just look at this bit of human life! Rhoda came to him quickly and he pointed low down on the adobe wall where was the perfect imprint of a baby's hand.

"The little rascal got spinned, I'll bet before it put its hand on the door before it was dry!" commented John.

Rhoda smiled but said nothing. These departed peoples had become very real and very pitiable to her.

(Continued next week.)

Back up the Troops by Substituting



ing here to-day, and to-morrow start in good shape."

Rhoda looked wistfully from the shade of the pueblo out over the desert. She had become very, very tired of this endless fleeing.

"I wish the Newman ranch was just over beyond," she said. "John, what will you do if Kutele comes on us here?"

DeWitt's forehead burned a painful red. "I have a shot left in my revolver," he said.

Rhoda walked over to John and put one hand on his shoulder as he sat looking up at her with somber blue eyes.

"John," she said, "I want you to promise me that you will fire at Kutele only in the last extremity to keep him from carrying me off, and that you will shoot only as Porter did, to lame and not to kill."

John's jaws came together and he returned the girl's scrutiny with a steel-like glance.

"Why do you plead for him?" he asked simply.

could only make you see what a different world I live in! You would have been tied to an invalid, John, if Kutele hadn't stolen me! Think now of all I can do for you! Of the home I can make, of the work I can do!"

DeWitt answered tersely.

"I'm mighty glad yours well, but only for your own sake and because I can have you longer. I don't want you to work for me. I'll do all the working that's done in our family!"

"But," protested Rhoda, "that's just keeping me lazy and selfish!"

"You couldn't be selfish if you tried. You pay your way with your beauty. When I think of that Apache devil having the joy of you all this time, watching you grow back to health, taking the joy of you, carrying you, it makes me feel like a cave man. I could kill him with a club! Thank heaven, the lynch law can hold in this forsaken spot! And there isn't a man in the country but will back me up, not a jury that would find me guilty!"

Rhoda sat in utter consternation. The power of the desert to lay bare

The Upward Look

Winning Through Christ

RECENTLY we have read a most helpful and inspiring book, entitled "Abide in Christ," by the late Rev. Andrew Murray, the well known missionary to South Africa. It teaches the secret of daily victory, through the power of the indwelling Christ, over besetting sins. We purpose publishing extracts from this book for some weeks and hope they will prove a means of great blessing to the readers of this department. Those who would like to obtain the book for themselves may obtain copies through Farm and Dairy for 60 cents each.—E.H.N.

All Ye Who Have Come To Him.
"Come unto me."—Matt. xi. 28.
"Abide in me."—John xv. 4.

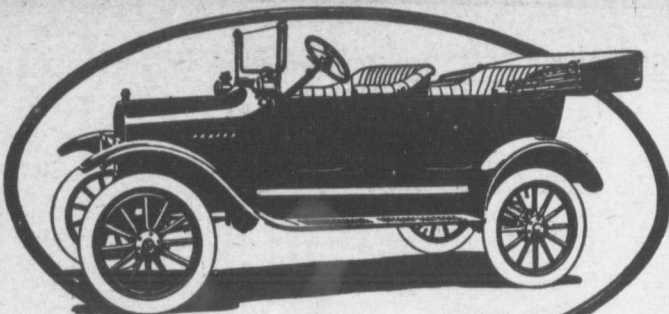
It is to you who have heard and hearkened to the call, "Come unto me," that this new invitation comes, "Abide in me." The message comes from the same loving Saviour. You doubtless have never repented having come at His call. You experienced that His word was truth; all His promises He fulfilled; He made you partakers of the blessings and the joy of His love. Was not His welcome most hearty, His pardon full and free. His love most sweet and precious? You more than once, at your first coming to Him, had reason to say, "The hall was not told me."

And yet you have had to complain of disappointment; as time went on, your expectations were not realized. The blessings you once enjoyed were lost; the love and joy of your first meeting with your Saviour, instead of deepening, have become faint and feeble. And often you have wondered what the reason could be, that with such a Saviour, so mighty and so loving, your experience of salvation should not have been a fuller one.

The answer is very simple. You wandered from Him. The blessings He bestows are all connected with His "Come to Me," and are only to be enjoyed in close fellowship with Himself. You either did not fully understand, or did not rightly remember, that the call meant, "Come to Me to stay with Me." And yet this was in very deed His object and purpose when first He called you to Himself. It was not to refresh you for a few short hours after your conversion with the joy of His love and deliverance, and then to send you forth to wander in sadness and sin. He had destined you to something better than a short-lived blessedness, to be enjoyed only in times of special earnestness and prayer, and then to pass away, as you had to return to those duties in which far the greater part of life has to be spent. No, indeed; He had prepared for you an abiding dwelling with Himself, where your whole life and every moment of it might be spent, where the work of your daily life might be done, and where all the while you might be enjoying unbroken communion with Himself.

And observe especially, it was not that He said, "Come to me and abide with Me," but, "Abide in Me." The intercourse was not only to be unbroken, but most intimate and complete. He opened His arms, to press you to His bosom; He opened His heart, to welcome you there; He opened up all His Divine fullness of life and love, and offered to take you up into His fellowship, to make you wholly one with Himself. There was a depth of meaning you cannot yet realize in His words: "Abide in Me."

And with no less earnestness than He had cried, "Come to Me," did He plead, had you but noticed it, "Abide in Me." By every motive that had induced you to come, did He beseech



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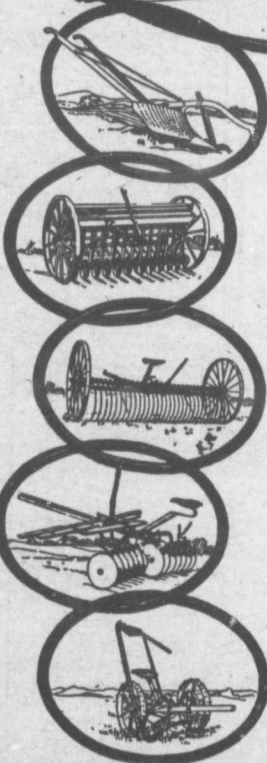
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To Our Women Readers

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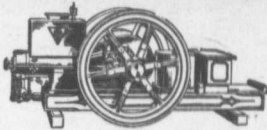


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you to abide. Was it the fear of sin and its curse that first drew you? The pardon you received on first coming could, with all the blessings flowing from it, only be confirmed and fully enjoyed on abiding in Him. Was it the longing to know and enjoy the Infinite Love that was calling you? The first coming gave but single drops to taste,—'tis only the abiding that can really satisfy the thirsty soul, and give to drink of the rivers of pleasure that are at His right hand. Was it the weary longing to be made free from the bondage of sin, to become pure and holy, and so to find rest, the rest of God for the soul? This too can only be realized as you abide in Him,—only abiding in Jesus gives rest in Him. Or if it was the hope of an inheritance in glory, and an everlasting home in the presence of the Infinite One; the true preparation for this, as well as its blessed foretaste in this life, are granted only to those who abide in Him. In very truth, there is nothing that moved you to come, that does not plead with thousandfold greater force: "Abide in Him." You did well to come; you do better to abide. Who would, after seeking the King's palace, be content to stand in the door, when he is invited in to dwell in the King's presence, and share with Him in all the glory of His royal life?

And yet I fear that there are many who have indeed come to Jesus, and who yet have mournfully to confess that they know but little of this blessed abiding in Him. With some the reason is, that they never fully understood that this was the meaning of the Sermon's call. With others, that though they heard the word, they did not know that such a life of abiding fellowship was possible, and indeed within their reach. Others will say that, though they did believe that such

a life was possible, and seek after it, they have never yet succeeded in discovering the secret of its attainment. And others, again, alas! will confess that it is their own unfaithfulness that has kept them from the enjoyment of the blessing. When the Saviour would have kept them, they were not found ready to stay; they were not prepared to give up everything, and always, only, wholly to abide in Jesus.

I know how many, and to the young believer, how difficult, the questions are which suggest themselves in connection with it. There is especially the question, with its various aspects, as to the possibility, in the midst of wearying work and continual distraction, of keeping up, or rather being kept in, the abiding communion. I do not undertake to remove all difficulties; this Jesus Christ Himself alone must do by His Holy Spirit. But what I would fain by the grace of God be permitted to do is, to repeat day by day the Master's blessed command, "Abide in Me," until the heart and mind find a place there, no more to be forgotten or neglected. I would fain that in the light of Holy Scripture we should meditate on its meaning, and that, in the quietness of the heart, opens to apprehend something of what it offers and expects.

Let us set ourselves in quiet trust before Him, waiting to know His holy voice, and with a low voice that is mightier than the storm that rends the rocks,—breathing its quickening spirit within us, as He speaks: "Abide in Me." Truly, Jesus Himself speak the word, receives with the word the power to accept and to hold the blessing He offers.

Another Two-in-One Invention

HOW many of our busy Red Cross workers are familiar with the art of knitting two socks at once? Yes, it sounds strange and when we heard of it first, it really did sound impossible. We were out to spend an evening not long ago, along with a number of others who were busy knitting, and one of the young ladies told us about this new method. She did not know just how it worked out, but knew it was possible to knit a pair of socks on the same needles. Since then we have gotten the directions and are passing them along to Our Women Folk. The method, we understand, was invented in Sydney, Aust. alas, where they were knitting 50,000 pairs of socks a month for the British Relief. After the knitters learned this new method, they were able to turn out 76,000 in a month. Here are the directions:

Use double yarn, one for each sock. The purling for the top of the socks is knitted separately. When one is finished, take it off with a running needle on to a heavy cord. When the other is finished slip the first one inside the second, right sides together, and with the knitting needle take up from first dress as when the other was being knitted with the first stitch from the needle and ending with the last stitch from the one on the cord. Hold the sock toward you, purling the first stitch which is on the sock that was on the needle and knitting the second stitch from the one that was on the cord; proceed with first purl, then knit, holding the thread over the first finger for purling and over the second finger for knitting and you will soon acquire a rhythm.

When the heel is reached, take off as in any sock. As the heel is turned always purll the one next to you and knit the other. To narrow the heel knit and third stitch, purl them and slip the needle out, which leaves one stitch from the opposite sock which you slip on to your needle and narrow knitting. There is no slip and bind in this sock. When finished slip the needles out and take up your sock

arate socks and bind never put your thread keep it towards you as ing back on your heel. The great advantage this method is that it exactly the same size considered that many years in Red Cross work speed of time changing toes them smooth and the advantage is worth not that after knitting the sock in this way, one will as if knitting the sock

Some Aviation E

WE have received a letter from Mr. Peterboro who writes in our aviation work in Part of his letter reads: "I have completed my flying here and so next with fast machines. hours' instruction in I started up alone. Last my first day up alone three hours required to here. I got alone in every minute of the time is splendid to feel that alone and have full control machine. I flew about the three hours, coming for more petrol and where I started. "I am sending a post type of machine I



Cadet Harry H. This illustration is a snap sent to us by Cadet shows him standing by a is a type of the air

ing with here. I crash particular one shows in few days after the picture I smashed the propeller rize and a few struts, without a scratch myself turn on the ground when ing too fast and the wouldn't stand the cramped up, the wheels through the bottom plane "I like flying very much I do the more I want highest I have been up feet. There is the finest side up above the clouds you can see in every direction is a sea of milk-white fo shining on this makes a ture. The machine I have is not capable of more than an hour, unless it is when you sometimes get 65 m.p.h. The next machine to fly will be an Avro, 90 to 100 m.p.h. I have loop, do spinning, nose dips all the rest of these used in aerial fighting, or scouts after that so plenty of excitement an You get all the fastest though and usually fly have either three or four

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arate socks and bind off. In purling never put your thread over—always keep it towards you as if you are purling back on your heel.

The great advantage in following this method is that both socks will be exactly the same size and when it is considered that many women engaged in Red Cross work spend a great deal of time changing toes and making them smooth and the same size, this advantage is worth noting. It is said that after knitting three pairs of socks in this way, one will be as efficient as if knitting the socks singly.

Some Aviation Experiences

WE have received an interesting letter from Mr. H. Hastie, a Peterboro boy who is now taking up aviation work in London, Eng. Part of his letter reads as follows:

"I have completed my elementary flying here and so next to a squadron with fast machines. I had three hours' instruction in the air before I started up alone. Last Monday was my first day up alone and I did the three hours required to pass out of here. I got along fine and enjoyed every minute of the time I was up. It is splendid to feel that you are up alone and have full control of the machine. I flew about 150 miles in the three hours, coming down once for more petrol and landing back where I started.

"I am sending a postcard showing the type of machine I have been fly-



Cadet Harry Hastie.

This illustration is reproduced from a snap sent to us by Cadet Hastie, and shows him standing by a machine which is a type of the air craft he is using.

ing with here. I crashed with the particular one shown in the picture a few days after the picture was taken. I smashed the propeller, under carriage and a few struts, but came out without a scratch myself. I tried to turn on the ground when I was taxiing too fast and the undercarriage wouldn't stand the strain so it crumpled up, the wheels coming right through the bottom plane.

"I like flying very much; the more I do the more I want to do. The highest I have been up yet is 5000 feet. There is the finest scenery possible up above the clouds. As far as you can see in every direction, there is a sea of milk-white foam. The sun shining on this makes a beautiful picture. The machine I have been using is not capable of more than 50 miles an hour, unless it is a down wind, when you sometimes get up to 60 or 65 m.p.h. The next machine I expect to fly will be an Avro, speed about 90 to 100 m.p.h. I have to learn to loop, do spinning, nose dives, roll and all the rest of these fancy stunts used in aerial fighting. I am going on scouts after that so that means plenty of excitement and fighting. You get all the fastest machines though and usually fly alone. You have either three or four machines

to protect you, which you handle yourself as well as fly your machine. Our latest scouts have a speed of 140 to 150 m.p.h., so there isn't much use of anyone chasing you unless they have a faster machine."

HOME CLUB

Men Not to be Blamed

ISEE by "Aunt Greta's" recent letter to the Home Club that she asks the question, "Who decides what we shall eat?" and claims that the men do. Let "Aunt Greta" or any other woman get out and do a man's work at chores or following the team, or working in the hay field as I do, and she will say that the men must have meat, eggs and all these things to keep up their strength. They need it as much as the men in the trenches as they work as hard for it.

It is all right for women who just have housework to do, and perhaps have the assistance of the men to do part of that, to talk of some light diet for a man, but let the woman get out and till the soil, work at the hay and so forth and I believe she will want three good hearty meals and a lunch between meals, which the men seldom get. Then too, a woman who has no one but herself to go in and get a meal after being out in the field, has to have meat, eggs and such things which she can prepare quickly. I am a woman and do all kinds of men's work on the farm, but I don't wear overalls. I don't consider that they belong to women's apparel. We meet a great many agents and other strangers when at this work and I don't want to be asked for a chew of tobacco, so I wear aprons. I eat three good hearty meals a day and even with this nourishing food my health is giving out. Woman was not intended for such hard work, but the scarcity of help makes it necessary as we have our farms and they have to produce or we will go under.

So much is said by people who never did a hard day's work on eatings and what the farmer shall have. We are told that we must produce, must make maple syrup, etc., that all this work is a pleasure and that the country is a fine place in which to live. The only way the country becomes a fine place to live in is through long hours, hard work and by doing without clothes and other pleasures which other people enjoy. I would say, let these women who take so long in thinking up menus so that food may be saved, to get out and do some harder work. We get advice to burn and the clipping which by enclosing voices my sentiments, so I will send it along:

"The farmer gets more good advice than any man beneath the sun; the magazines would treat him nice, so tell him once, and tell him twice, how all his duties should be done. And lecturers with bulging brows in country schools lay down the law; they tell him how to groom his cows and how to raise blue ribbon sows by feeding artichokes and straw. The editors of weekly sheets, who never punched a span of mules, sit in their chairs with leather seats, and tell him how to raise his beets, and for his guidance lay down rules. The men pursuing other trades, we all assume, know what to do: no man the merchant prince upbraids, or chides the lawyer till he fades, or to the plumber hands a fow. The sexton he can dig a grave, we do not stop to tell him how, or show the barber how to shave, or tell the tightwad how to save; the dairyman can milk his cow. But every man in town believes so his handman knows how to farm; and so we criticize his sheaves, and tell him how to shear his beeves, and treat the old mare for the heaves, and bore him till he has the peevs, and to his shoulders roll his sleeves, and tries to do us deadly harm."—"A Mannish Woman."

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The Circulation Department
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Silks Taking the Place of Wool

Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When sending your order please be careful to state bust or waist measure for adults, for children, and the number of the pattern desired. Orders are filled within one week to 16 days after receipt. Price of all patterns to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



ON account of the shortage of wool, silk will be featured very prominently this spring and summer for suits and dresses, and will come chiefly in dark tones we are told. The shortage of wool for clothing will probably not be noticed so much this spring and summer as it will be next fall and winter, for after all, no material looks quite so smart and dainty as silk. Another advantage about silk is that as a rule creases drop out of it quickly which is not the case with many of the other materials.

Much hand work on the blouses is being done in this spring and summer. As has been pointed out, any more wool than pos-sible, wool embroidery is still high in favor. On many of the sheer Georgette blouses a little design worked with wool and beads adds much to the dainty appearance. Some of the simplest old-fashioned embroidery stitches are clever and very little expensive lace is being used. Designers are trying very hard to introduce high collars again and jabots are being worn with coats and suits. A high collar really adds smartness to one's appearance when wearing a suit, especially if one has a long slender neck, but the lower styles are so much more comfortable, it is doubtful if we will go back to high collars during warm summer weather at all.

2443-2444-Lady's Costume Overskirt or dressmaker's skirt with us as will be noted by the style of skirt shown here. Of course, if preferred, this dress might be made in one-piece, with or without a tunic. The blouse is neatly constructed with the square opening at neck and new pointed collar. This style calls for two patterns, 10 cents for each. The blouse is cut in size from 34 to 36 inches bust measure and the skirt from 22 to 24 inches waist measure.

2422-Girl's Dress—Is this not a neat little dress for summer wear? It looks very cool and comfortable. Note the style of sleeve, also the unique trimming at the neck. Five sizes: 4, 6, 8, 10 and 12 years.

2178-Girl's Dress—Another dress which is quite unusual in design is here shown, the unusual part of course being the in-

sets on either side of the front and back. Here, too, the sleeves are short and full. Four sizes: 4, 6, 8, and 10 years.

2438-A Good Sport's Outfit—The sundy suit is not going to be tabooed this year for which many of our young girls will be very thankful. A midday is so comfortable and easily slipped on and off. This style is quite simple, the pockets being the only trimming. Four sizes: 14, 16, 18 and 20 years.

2622-Lady's Apron—Now is the time, if you have not already done so, to get all the aprons and working dresses made up for summer. The style here shown is a complete overall and in very warm weather might be used as a working dress as it would be very cool and comfortable. A large pocket on either side of the front will be found useful as well as ornamental. Four sizes: small, medium, large and extra large.

2444-A Popular Seasonable Style—How does this jacket appeal to our home dress-maker? It is one of the popular styles this spring. It may be fashioned from material, like the skirt, to be worn over blouses of various styles. As will be noted there are no sleeves in this jacket. The shawl collar is one of the new collar styles also which add to the cool-like appearance of this outfit. Four sizes: small, 32-34; medium, 34-36; large, 40-42; and extra large, 44-46 inches bust measure.

2420-Girl's Dress—We are showing quite a large variety of children's styles from which you will be able to select one that is unique and quite pretty. It follows the high-waisted effect. Either long or short sleeves may be utilized. Five sizes: 4, 6, 8 and 10 years.

2433-Girl's House Dress—For the woman who is looking for a very simple and easily constructed house dress, the one here shown should fill the bill nicely. For any who are not accustomed to wearing low-necked dresses, the low collar shawl collar should appeal as quite practical. Seven sizes: 34 to 46 inches bust measure.

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Shrinkage in Creamery

THE question of allowed shrinkage on cream butter and prints is an important one at the present time, owing to the high price of butter. The manufacturer naturally does not wish to lose more weight than is necessary. The buyer insists on, and is receiving full weight of butter. As much of the cream goes into gold storage packed boxes, where it is held for a short while before being packed in the weight of butter necessary to make the desired "gold out weight" when in storage. It is a very important point.

Tests made during the summer of 1917 have shown that the loss per cent in the finished butter is 3.35 per cent, with 1.45 per cent finished butter, and held in storage at a temperature of 50 F., was but one-quarter of one per cent, and for three months half pound. Raw butter 2.78 per cent, and having 2.78 per cent in the finished butter, half pound per box in two months three-quarters of a pound more.

These results show that light cream butter made from raw cream should hold out weight for three months in storage. Prints of butter are packed in boxes when made. Heavy prints need more butter to hold their weight. Efficiency of Machine Press. A number of creamery men have been able to produce prints of machine printers. These are very good prints. The chief advantage of machine printing over hand is more rapid work and neatness. As far as uniformity of individual prints goes, there is no question but that they are to be quite as much varied when the hand printer is used.

Very little of two prints per box cut into prints with a 100 lb. in the first box cut, there were prints exactly sixteen ounces each. In the second box, there were prints of 16.32 ounces, and in the third box, there were prints of 16.32 ounces. The required sixteen ounces, the loss were from 23-23 of an ounce. The remainder of the prints carried from 2-32 of an ounce, or 14, to 34-32 of an ounce pound. In the other box, the loss were from 23-23 of an ounce. In the first box cut, there were prints of 16.32 ounces, and in the second box, there were prints of 16.32 ounces. The required sixteen ounces, the loss were from 23-23 of an ounce. In the first box cut, there were prints of 16.32 ounces, and in the second box, there were prints of 16.32 ounces.

If we take the totals of three and minus prints on the first 100 lb. box, the difference is 16.32 ounces. The difference is 16.32 ounces. The difference is 16.32 ounces. The difference is 16.32 ounces.

The foregoing may be regarded as preliminary tests and more work is needed before definite conclusions may be drawn. However, it would seem as if we may see considerable variation in weight of prints of butter made by machine.

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department to ask questions on matters relating to cheese making, and to suggest subjects for discussion.

Shrinkage in Creamery Butter
Prof. H. M. Dean, O.A.C., Guelph.

THE question of allowance for shrinkage on creamery solids and prints is an important one at the present time, owing to the high price of butter. The manufacturer naturally does not wish to give any more weight than is necessary, while the buyer insists on, and rightly so, receiving full weight of butter paid for. As much of the creamery "solids" goes into cold storage packed in 56 lbs. boxes, where it is held for some time, the weight of butter necessary to place in each package in order to have it "hold out weight" when taken from storage, is a very important one.

Tests made during the season of 1917 show that the loss per box on pasteurized cream butter, salted three per cent, with 1.45 per cent. in the finished butter, and held for two months at a temperature of about 35 deg. F., was but one-quarter of a pound, and for three months was one-half pound. Raw cream butter, salted five per cent, and having 2.78 per cent. salt in the finished butter, lost one-half pound per box in two months, and three-quarters of a pound in three months.

These results show that lightly salted butter made from pasteurized cream, should hold out weight at the end of three months in storage if 56½ lbs. of butter are packed in the box when made. Heavily salted butters need more butter to hold their weight.

Efficiency of Machine Printers.

A number of creamerymen who cater to the print butter trade, are now using machine printers. These are of varying styles. The chief advantages of machine printing over hand printing are, more rapid work and neater prints. So far as uniformity in weights of individual prints goes, there appears to be quite as much variation as when the hand printer is used. Tests were made on two ninety-pound boxes cut into prints with a machine. In the first box cut, there were twelve prints exactly sixteen ounces in weight. The remainder of the prints varied from 32 of an ounce too light, to 24-32 of an ounce over a pound. In the other box, the variations were from 23-32 of an ounce too little to 29-32 of an ounce over the required sixteen ounces. In this box there were but five prints of exact weight. If we allow 4-32 or ¼ of an ounce as the maximum variation each way, there were 49 prints out of 90 in the first box outside the maximum, and 40 in the second box, or practically 50 per cent. of the prints were outside the limits set. In the first box, 63 prints were over, and 15 were under 16 ounces in weight, and 12 were exactly one pound. Of the second box, 49 were over, 49 were under, and 7 were exactly sixteen ounces.

If we take the totals of the plus and minus prints on the first box, we find the plus's, or weights of prints in excess of 16 ounces, equals 516 thirty-second ounces, and the minus prints (under 16 oz.) equal 32. The difference between the plus's and the minus's is 434-32, or a little over thirteen ounces on ninety prints. In the second box the plus's equal 312 and the minus prints 225, a difference of 57-32, or about 2½ ounces. In this case, the plus and minus prints more nearly balance each other.

The foregoing may be regarded as preliminary tests, and much more work is needed before definite conclusions may be drawn. However, it would seem as if we may expect considerable variation in weight of prints of butter made by machines.

In the case of this particular machine, the prints along one side and on the bottom row were nearly always heavier than those cut in other parts of the box. This could be remedied by more even spacing of the wires used for cutting the butter.

Commission Considering Cheese Prices

THE initial meeting of the Dairy Produce Commission was held April 9th, at the offices of the old Cheese Commission, in Montreal, which organization the new commission is to replace. Both the personnel and the scope of the commission have been enlarged. The members of the commission for 1918 are as follows:

The chairman of the Allied Provision Export commission, New York; or his deputy, Mr. A. J. Mills; Mr. Jas. Alexander, of Montreal; Mr. J. A. Rudnick, Dairy Commissioner, Ottawa; Dr. Jas. W. Robertson, representing the Canada Food Board; Mr. Jas. Donaldson, president, Dairymen's Association of Western Ontario, Atwood, Ont.; and Mr. A. Gerin, of Conitook, Que, representing the producers.

In 1917 the Cheese Commission represented the Imperial Board of Trade.

MORE WORK FROM YOUR HORSES

Heavy spring work takes the surplus flesh from the horse. His collar no longer fits. His neck and shoulders chafe and galls. He can't do his full share of work and you lose money. Prevent these evils by using TAPATCO Pads.

A NEW AND BETTER HOOK ATTACHMENT

Consisting of wire staple, reinforced with felt washer (note where arrows point). This gives the hook a better hold and prevents pulling off. The weakest point is made strong and life of pad greatly lengthened.

Look For The Felt Washer.

SOLD BY DEALERS EVERYWHERE

The American Pad & Textile Company

Chatham, Ontario, Canada



Pat. Ind. U.S. Pat. 1,701, Pat. in Can. Apr. 6, 1915.

When Writing Mention Farm and Dairy



EATON'S

SPRING AND SUMMER CATALOGUE 1918

450 Pages
Thousands of Illustrations
Send for a Copy To-day

Attractive Styles—Economy Prices
Are Features of This New Book

which shows you how you may look your best and yet be economical.

It brings to you the resources of a huge store from which you may make your selection. Whether it be Clothing, Home Supplies, Farm and Garden Requirements, etc., you will find splendid assortments at prices that will save you money. Hundreds of thousands of thrifty Canadians economize by shopping from the EATON Catalogue. A copy of this useful, profusely illustrated, 450-page book will be sent you free on request. Fill in coupon below with your name and address and mail it to us to-day. It will pay you.

T. EATON CO.
TORONTO CANADA

Please send me FREE of charge a copy of your new Catalogue.

NAME _____

ADDRESS _____

RENNIE'S Win the War SEEDS

EVERY man, woman and child must help make the home garden produce vegetable food this year—for food is scarce and labor scarcer. The earlier your crop is ready the better for yourself and also the nation. We have carefully considered this condition, and assembled a special collection of Rennie's Seeds—to meet it. Our "Early Collection" will give you rapid production in volume.

Early Collection

This Collection is made up Specially for these Desires an Early Supply of Vegetables.

BEET, Early Extra Blood.
CABBAGE, Extra Early.
CARROT, Early Scarlet.
CANTIFLOWER, Snowball.
CUCUMBER, Slicing.
LETTUCE, Early Crisp.

50c Prepaid

A Word About the Stars

Referring to our 1918 catalogue. Wherever you see items marked with a border of stars similar to the one surrounding this paragraph—you will find extraordinary bargains in seeds. Choose your seeds carefully and read the star marked items especially.

Flower Seed Collection

Alyssum, Sweet.
Asters, Mixed.
Bisham, Mixed.
Candytuft.
Dianthus (Cheese Flakes).
Hyacinths, Sweet.

50c Prepaid

THE **WILLIAM RENNIE COMPANY**
KING & MARKET STS. TORONTO
ALSO AT MONTREAL WINNIPEG VANCOUVER

2 CHOICE SIRES

No. 1. 6 weeks old, sired by **MR RIVERDALE BOHO LYONS**, whose 4 sires average over 190 lbs. per day, including **MAT BOHO SYLVIA**, World's Champion milk producer, and 43 lbs. butter, and whose 2 sisters, dam, dam's sister and granddam have records over 700 lbs. milk in 7 days. Calf's dam has 24 lbs. butter, 18 lbs. milk, in 7 days.

No. 2. 4 months old, sired by **KING KORNDYKE JOHANNA BEGIE**, whose 7 nearest dams average 30.75 lbs. His 11 nearest dams average 22.67 and his 23 nearest tested dams average 27.95 lbs. butter in 7 days. Dam is a 25 lb. daughter of **GRACE PATNE 2nd's** Sir **COLLANTHA**, 29 R.O.M. daughters and R.O.M. dam.

THEY ARE CHOICE ONES—PRICED RIGHT.

COUGHLIN BROTHERS, R.R. No. 9, PETERBORO, ONT.

EDWARDSBURG GLUTEN FEED

23%
PROTEIN
GUARANTEED

is the ideal feed for milk production.

THE mere fact that it costs a little more than Bran, does not mean that it is more expensive. On the contrary, it is cheaper than Bran—it is about the cheapest feed you can give, the cows—because it increases the milk yield so much.

We have a little book that tells about Edwardsburg Gluten Feed—what it does and how it makes money for you—write for a copy, free.

—FATTEN HOGS ON EDWARDSBURG OIL CAKE.
THE CANADA STARCH CO., LIMITED TORONTO
WORKS AT CARDINAL, BRANTFORD, FORT WILLIAM

Under the new arrangement the commission represents the British Ministry of Food through the Allied Provision Export Commission, located in New York. The Ministry of Food is prepared, through these channels, to purchase the considerable surplus of Canadian cheese, butter and condensed milk, of the crop of 1918. By an arrangement with the United States Food Administrator, it will be possible to deal with these articles in such a manner as to insure some parity of prices.

The price of cheese for 1918 was the subject of discussion at the opening meeting. Mr. Owen Smith, chairman of the Allied Provision Export Commission, and Mr. Mills of the same commission, who were present heard what the producers' representatives and other members of the commission had to say on that point, and have called these views to the Ministry of Food in order to secure the necessary authority to make definite arrangements to purchase all the cheese for 1918. It is expected that an understanding will be reached in the course of a few days, when further announcement will be made.

Standard Feed for Live Stock

ARBORENT report issued by the Ontario Organization of Resilience Committee will make interesting reading for Ontario farmers who buy feed—and this includes the majority. It is as follows: "Confronted with the imperative need of securing a standard feed for hogs and cattle next season, the Agricultural sub-committee of the Ontario

Resources Committee yesterday recommended certain proposals endorsed by a sub-committee, which has been securing information during the past few weeks. The scheme, as outlined, is that a compound feed will be put on the market. It will include such concentrates as corn, gluten, bran, midlings, brewers' grains, cotton seed and oil cake. This food will be compounded into two feeds, one for hogs and the other for cattle. It will be sold direct to the farmers through farmers' clubs, at a price just slightly in excess of cost, to provide for a reasonable profit to the manufacturer. "Nothing definite has been decided by the committee as to the amount of feed to be secured, but the minimum quantity will be 1,000 cars. A conference will be arranged with the Millers' Association and three or four mills will be selected at various points in the province, which will undertake to manufacture this feed under Government supervision. The inspectors provided by the Government will advise the farmers that the feed is up to standard.

"With the assistance of the Canada Food Board the committee will endeavor to locate supplies of such concentrates in the United States, and at the same time arrange with the United States Railway Board to have them shipped into Canada. In order to do this it will be necessary to take immediate action and get the supplies into the country during the summer months, in order that they may be available for distribution in the fall and used to relieve the feed situation in the early winter. The committee

A RARE BARGAIN

Registered Holstein bull, yearling, sired by a half brother of Totilla of Riverside, 2094 lbs. milk, 1067 lbs. butter in one year. Record of sire's dam's milk 244, butter 23.45. Dam's record milk 470, butter 23.42. Straight and stout grown. Price \$100. Write, please, or come.

LANINGDALE STOCK FARM

VILLA NOVA, ONT.

PLEASANT VIEW AYRSHIRES.

Young calves, either sex; several from R. O. P. cows; also a few bulls fit for service this year. It will pay to come and see or write for prices if wanting anything in choice Ayreshires.

A. HENDERSON

R. R. No. 4

ATHENS, ONTARIO

*Caldwell's
Molasses Hog Feed*

*You cannot mix or
buy a feed that will
force your hogs to mature
faster—and cost you
less per pound gain
than Caldwell's Molasses
Hog Feed. The secret is
in the balancing and
blending. Order from
your feed man today.*

**The Caldwell Feed & Cereal Co. Limited
DUNDAS, ONTARIO**

is composed of Messrs. Assistant Deputy Minister; F. C. H. of the Branch; A. Leitch of Tural College; Joseph Bradford, and G. A. Gillespie

Keep Wheat Secure
"The committee decided assistance of the Ministry of Agriculture in having an made into the export screenings. At present the of what is known screenings, which include wheat seed, are being sh the line under permit. In shortage of feed in Canada thought that at least some roughage screenings could this country. The higher gings are now being sold dian farmers."

AD. TALK.
A CONSTANT DROPPING STONE.

A few weeks ago there addressed to those but one reason of the position to be continuous a Now, in case there should who is not in need of the same time has taken it party; in other words if who should be running a Farm and Dairy, and who is not in need of a while, it is my intention to give to the man who has the opportunity of making of the idea. The originator of which heads this article, K. I believe, certainly knows more than a few words than I could write to cram into a column as talk from cover to cover. I never have been heard of in the centuries, and used in many forms, but through it all it is a saying to-day. It is a modern application it is an argument in favor of not advertising as anything we should do.

Now, in case any one who is not in need of the attention of the previous one who is not in need of the attention to the fact that, which things in each which are applicable, other, one was written by a man who did not wish to have his name and his address in the paper. A prominent business man of the day: "I expect my good selling after, as other fellows slack off for the I did not tell him that the rest of our other advertisers will go to slack off, and who will be having the summer sale on the market is wide, and there's room for all. Another man said: "I want my ad. running whether. I have anything to want the correspondence of it, and can use it as an excuse of cultivating a large number of men for the kind of stuff I have want to be in the game."

"A Constant Dropping Stone." What has this to do with the correspondence of it, and can use it as an excuse of cultivating a large number of men for the kind of stuff I have want to be in the game."

"A Constant Dropping Stone." What has this to do with the correspondence of it, and can use it as an excuse of cultivating a large number of men for the kind of stuff I have want to be in the game."

A Constant Advertiser: Bulletin
C. G. McKILLICAN,
Live Stock Department

is composed of Messrs. C. F. Bailey, Assistant Deputy Minister of Agriculture; F. C. Hart, of the Markets Branch; A. Leitch of the Agricultural College; Joseph Brethour of Burford, and G. A. Gillespie of Peterboro.

Keep Wheat Screenings.

"The committee decided to ask the assistance of the Dominion Minister of Agriculture in having an investigation made into the export of roughage screenings. At present large quantities of what is known as roughage screenings, which includes a lot of wheat seed, are being shipped across the line under permit. In view of the shortage of feed in Canada, it is thought that at least some of these roughage screenings could be kept in this country. The higher grade screenings are now being sold to the Canadian farmers."

AD. TALK.

A CONSTANT DROPPING WEARS THE STONE.

A few weeks ago there appeared in this column an ad. especially addressed to those breeders, who for one reason or another were not in a position to be continuous advertisers. Now, in case there should be any one who is not in need of this advice, and at the same time has taken it too much to heart; in other words, who is not yet ready to be running a regular ad. in Farm and Dairy, and who has become vexed with it, it is my intention to take this opportunity to give him a full and free talk from cover to cover. This same proverb has been handed down through the centuries, and used in many different forms, but through it all it is as truthful as a saying to-day as it ever was. A modern application it is as strong an argument in favor of steady persistent advertising as anything we could imagine. Now, in case any one who reads this should imagine that this talk is a contradiction of the previous one already referred to, I would draw attention once again to the fact that, while there are things in each which are applicable to the other, one was written for the man who did not wish to handle correspondents and the other for the man who did. A prominent breeder said to me the other day: "I expect to do some good seed selling, after the close of the other fellows slack off for the summer." I did not tell him that he was a whole lot of other advertisers who were not going to slack off, and who would also be sharing the summer sales. However, the market is wide, and there's plenty of room for all. Another prominent breeder said: "I want my ad. running every week, whether I have anything to sell or not. I want the correspondence, can handle it, and can use it as an excellent means of cultivating a trade in prospective buyers for the kind of stuff I have to sell; I want to be in the game."

"A Constant Dropping Wears the Stone." What has this to do with advertising? Ask Henry Ford. Can't tell. Watch his advertisements in Farm and Dairy, or any other publication that reaches likely buyers, see how he keeps pecking away. Does he withdraw his name from prominent advertising at all that he is not likely to make sales. No, figuratively speaking, the little Ford makes right along, summer and winter sales or no sales. Nothing very startling? No, yet you see a certain fellow Ford is some corner or another of almost any publication you choose to pick up. This one may be said of a host of other advertisers of the same class. They don't go to the public appetite to get established it pay them? Apparently it does. They still continue the habit. It has made their names household words, and made their productions, whether Automobiles, Farm machinery, or Kitchen utensils, as prominent as their names. This is what may be accomplished by persistent advertising, and it works just the same in live stock matters. "Shall we continue live stock advertising right along during the coming summer months?" If you want to have the opportunity of keeping up a correspondence with your fellow breeders. Yes, if you wish to be established with your name, and the reputation of your stock, right in a lifetime of promise before the buying public eye, if you wish to be able next fall and winter to be in the "right of the best" making good sales, while the other fellow is getting the rust rubbed off his works, and selling his selling apparatus, wretchedly sold up, yes. If you wish to catch the buyers who will want to plug animals between now and next fall, yes. If you want to be in the game, for up hill, down hill, and for all the time, ADVERTISE! ADVERTISE! ADVERTISE! A Constant Dropping Wears the Stone. A Constant Advertiser Builds up a Name. C. G. McKILLICAN, Live Stock Department.

"An arrangement, whereby the farmers can secure seed in the spring with less difficulty, is suggested in a resolution which will be forwarded to the Ottawa authorities. It urges that an interior terminal elevator be established in Ontario, preferably near Toronto, as it is the centre of the province in order that greater facilities may be afforded for storing seed grain. This would be a great advantage to the grower. Such an elevator is located in Quebec, and it supplies that Province, as well as the Maritime Provinces, with seed in the spring."

Bad Year Ahead in Forest Fires

The danger season for forest fires is near at hand. Rapidly drying soil has left the old grass, brush, leaves, etc., in most perilous condition for starting fires. An effort is being made by the fire rangers to keep down the forest losses this year to a minimum. They will succeed only if every camper carefully extinguishes his campfire before leaving it, if every smoker refrains from tossing away burnt matches or tobacco in or near a wood, and if settlers in the newly-opened districts guard their land-clearing fires with the utmost care. Settlers' fires continue to be the very worst source of forest conflagration because of campers and careless smokers are close companions. "The fire rangers," says the Canadian Forestry Association, "want every good citizen to regard himself as a deputy ranger from now until November first."

MAPLE LAWN STOCK FARM
Bulls from King Siglo Alcatraz Spofford, a son of the \$6,000 bull, No. 1-11 months old, from a 25-lb. cow.
No. 2-14 months old, from a daughter of Count Regis Walker Fletcher, who has five daughters that milked over 100 lbs. and averaged 20 lbs. the bucket.
A few bull calves of the same breeding.
Write for prices and photos, or come and see.
Wm. H. Gough & Sons, Bloomfield, Ont.

THE FARMERS SEEDSMAN SEEDS FIFTY-TWO YEARS SERVICE

1866 1918

ORDER TO-DAY

When you place your order in our hands you can rest assured of receiving nothing but the finest selected seeds. In view of the shortage of seeds the placing of an early order is absolutely essential. Let us have your order at once. If you have not received a copy of our catalogue, write to-day for one. We pay railway freight to all parts of Ontario and Quebec on orders of \$10 or more.

CORN.	Alfalfa, Ontario Variegated No. 2, almost No. 1 for purity	25.00
Seed corn now on hand—it is of excellent quality, fine and dry as flint.	No. 1 Timothy, extra No. 1 for purity	6.25
Red Cob—Early Prince Charles No. 1, a substitute for Wisconsin No. 7)	No. 2 Timothy, extra No. 1 for purity	5.75
Early Improved Leaming.	No. 2 Timothy, No. 1 for purity	5.25
Guaranteed 90 per cent. germination, per bushel	Kentucky Blue Grass, 2 lb. cwt. Marquis Spring Wheat (Ontario Grower)	2.00
Guaranteed 75 per cent. germination, per bushel	O.A.C. 21 Barley	2.40
CLOVER AND TIMOTHY	No. 2 A. C. Barley, registered	2.80
Government Standard Bushel:	O. A. C. 72 Oats	1.45
No. 1 Red Clover	American Banner	2.10
No. 1 Alsike	Emmer	1.11
No. 2 Alsike, No. 1 for purity	Amber Sugar Cane, lb.
Hy		
Sweet Clover, White Blossom		

We are in the market for Eye Buckwheat, O. A. C. No. 3 Oats, Silver Hulled Buckwheat. Send samples. Bags for Clover and Timothy, 45c extra. Bags for Grain free.

GEO. KEITH & SONS SEEDS

EVERGREEN STOCK FARM
Registered Holsteins

OFFERS

CHOICE BULL 16 months old, nicely marked, as much white as black, and ready for heavy service. The records of his dam, dam's dam, dam's sister's dam, and great sire's dam average over 31 lbs. butter 7 days and over 100 lbs. milk in 1 day. A show bull and guaranteed right every way.

A. E. HULET Bell Phone **NORWICH, ONT.**

Get a Frost & Wood Mower

Over 80 years' experience with Canadian hay crops behind it—it won't fail you.

It's a rugged, durable implement—it does its work thoroughly—it will cut any crop you want to tackle. Its light draft is famous—due to its superior materials, the perfect alignment of cutter bar, our special internal gear drive and splendid roller bearings. Knives continue cutting when bar is loaded to clear an obstruction, saving time and trouble. They cannot wear out cutter bar. Handy levers give immediate, easy control.



As soon as the Mower starts the knives begin to cut.

Give your hay making machinery special attention, now. If you need a mower, dump or side delivery rake, a tedder, a loader or a hay press, better speak to our nearest Agent about now and the biggest value in Canada to-day.

FROST & WOOD RAKES GIVE PERFECT SATISFACTION


Don't think all Rakes are just alike—they're not. Frost & Wood Rakes are superior in design, material and workmanship—that's their reputation in the field. Teeth are of special quality, tempered steel. Self-dumping by easy pressure on foot lever. Heavy angle steel frame guarantees rugged strength and years of steady service.

You need a copy of our latest catalogue. Ask our nearest agent or write our nearest branch for it to-day.

The Frost & Wood Co. Limited, SMITH'S FALLS, ONT.

Cockshutt Plow Co. Limited, BRANTFORD, ONTARIO.

Sold in Western Ontario and Western Canada by



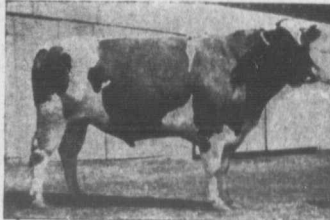
PERTH HOLSTEIN BREEDERS MEETING.

The annual meeting of the Perth District Holstein Breeders' Association was held Saturday afternoon with a good attendance. Several new members were enrolled. The business for the year was concluded and showed everything to be in a satisfactory condition. The sale held recently was a decided success, and it was decided to hold another about the same time next year. All the old officers were re-elected for the coming year, and prospects look bright for a most successful year.

The officers are:—President, David Arbogast, Sebringville; Vice-Presidents, R. McNamara, Stratford, and C. Baird, St. Marys; Secretary-Treasurer, A. C. Park, Listowel. Township directors—Dunville, Peter Smith, Fullarton, Peter Arbogast; Jolan, The Wood, George Ellacott, and J. Boyd; Morrison, J. E. Watson; W. Lee, S. Adolph; North, Easthope, W. M. Skins.

RECORDS AT VILLA VIEW FARM.

ARBOGAST BROS., of Sebringville, Ont., have been doing some excellent work in their herd at Villa View in the last few months. In a letter from them recently they state:—
The testing season at Villa View has just closed, and we are pleased to report the following records, made since December 1st.—Olivia Soburgling DeKol at seven years, 26.43 lbs. of butter and 639.5 lbs. of milk for seven days, and 108 lbs. butter and 2,548.0 lbs. of milk for 30 days; Maggie Netherland Ormsby made 20.63 of butter after having milk fever. Lynn Poulton Daisy at five years has 27.35 lbs. butter for seven days and 79.31 lbs. for 21 days; Lady Aggie Netherland at six years made 17.50 lbs. of butter from 478 lbs. of milk. Villa View Axie DeKol at three years has 24.43 of butter and 519.9 lbs. of milk. K. S. A. C. Tidy DeKol at 27 months made 17.26 lbs. of butter, 332.2 lbs. of milk. K. S. W. Ormsby at 27 months made 16.31 lbs. of butter, while her dam, Daisy Ormsby Lass made 31.48 lbs. of butter from 501.8 lbs. of milk in seven days. Villa View Aggie DeKol at three years made 21.11 of butter and 511.1 of milk; her dam, Laura Netherland Aggie just finished with 26.46 lbs. of butter from 552.8 of milk. Gipsy Queen of Bridgen at eight years, made 12.0 lbs. of butter and 531.9 lbs. of milk. Witzzy Evangeline DeKol made 21 lbs. of butter and 47.1 of milk for seven days, milking up to 18 lbs. on her best day. Ten cows age of 27,333 lbs. of butter for seven days. The first three daughters of King Seagis Alberta Calamy made average records of 18.45 lbs. of butter, two of them being 10-year-olds and all from low record dams.



DeKol Mutual Count

One of his sons will put your herd in the 20,000 lb. production class.

Jas. Seymour & Son, Idylwild Farm R. R. No. 1, Ida, Ont.

His Dam and Gd-Dam

Have Nearly

50,000 lbs. Milk

in One Year

That's the great milk-record backing on the dam's side only of the great sire

DeKol Mutual Count

that we have selected from the great Brethren sale to head our big herd at Idylwild Farm.

DeKol Mutual Count

is the only bull in Canada whose dam and sire's dam have a combined yearly record of nearly 50,000 lbs. of milk. His wonderful dam, DeKol Mutual Countess, as a junior three-year-old, made 20,679 lbs. of milk in R. O. P. (a world's record when made). She is also the dam of Hillcrest K. P. Countess, who at 2 years made 27.77 lbs. Her dam is that great producer, Rauwerd Count DeKol Lady Pauline, with over 25,000 lbs. for her year's work.

His Sire traces to that great sire of 100-lb. cows, Pieterje Hengerveel Count DeKol, 13 of whose daughters have gone over 100 lbs. in a day. He is also a brother on the sire's side to Burkeye Hengerveel, the first 20,000-lb. 4-year-old in Canada, and to Hilena Keyes with over 100 lbs. milk and 29.20 lbs. butter in R. O. M. Two of Count's daughters sold at the Brethren sale for over \$1,000.

DEKOL MUTUAL COUNT is a combination of the greatest 20,000-lb. blood in Canada. If you desire such a combination in your herd, make your plans now to secure one of his coming crop of sons. We can also accept a few approved females for service to him for the present season. Write us about service fees or about a future sire by him from our herd.

MORNINGSIDE HOLSTEINS

Study this combination of

Breeding, Production and Conformation

THE DAM "shown below"—TOPSY WAYNE POSCH DEKOL, about 20,000 lbs. milk and over 700 lbs. butter in year, R.O.P., freshened again 6 weeks from completing test (inspector's report not yet issued). Topsy represents

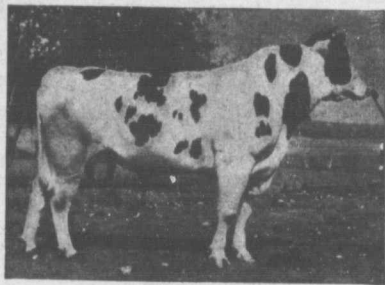
3 Generations of Producers.

Her dam, JEMINA WAYNE PIETERTJE DEKOL, has given 86 lbs. milk in 2 milkings and has sisters with official records from 26 to 28 lbs. per week. Topsy also has a daughter who has an R.O.P. record of 16,000 lbs. milk and 735 lbs. butter at 2 years.

She Produces and Reproduces.

I have also a few young bulls, one to three months old. These are sired by Hillcrest May Echo Butter Boy, and their dams are HILLCREST ORMSBY DEKOL (think of it), brother to K. P. Hillcrest Rauwerd, who sold at the Hillcrest dispersion for \$4,400.

[Am also open to offers on "Topsy," the 50,000-lb. cow, and two fine yearling bulls by Hillcrest Ormsby DeKol.



THE SIRE—HILLCREST MAY ECHO BUTTER BOY, 3 years old on March 25th. His sire, MAY ECHO CHAMPION, is full brother to May Echo, 110 lbs. milk in one day, 41 lbs. butter in 7 days, combined milk and butter champion of the world. He is a brother to Hillcrest May Echo Countess, 30.1 lbs. butter at 2½ years, who sold at the Hillcrest dispersion for \$2,000, and also to several others of the top notchers at that sale.

HE IS NOW FOR SALE.

As I have 26 of his daughters in my herd, I am forced to sell him to avoid inbreeding. He is right in every way—has filled out considerably since the photo was taken. He is just in his prime and should make history. I want him to go into good hands. Think what he'll be worth when those 26 daughters are tested.

THE CALF—He's a dandy—weighed 125 lbs. at birth—from sire and dam shown herewith. Naturally the photo does not do him justice—but he is so full of energy that he just simply couldn't sit still long enough to have his picture taken.

That's the sort of bull that has propensity—that's the bull that

Y-O-U want to buy to head that choice herd of yours, BUY HIM.

For Particulars Write or Phone

P. B. NELSON
Campbellford - - - Ontario



Topsy Wayne Posch Dekol



ONTARIO

*"The food wanted by mankind does not exist.
The word 'shortage' is not strong enough.
The whole world is up against a nasty thing, familiar
to the people of India, called 'famine.'"*

LORD RHONDDA,
Britain's Food Controller

One year ago, only the enemy was on rations.

To-day, Great Britain, France and Italy are on rations.

To-day, Germany controls the wheat lands of Roumania,
Russia, Poland and Ukania.

To-day, the shadows of hunger, famine, disease and death
hang over the Allies.

Upon the 1918 crop from Canada and the United States
depends the fate of the democratic peoples of the world.

If that crop is sufficient the Allies can be fed.

If that crop is not sufficient the Allies may have to accept
a German peace.

We know that farmers have obstacles and difficulties to
overcome--but the labour shortage this year is not as great
as it was last year. If you need help to produce more food
communicate with your District Representative of the De-
partment of Agriculture, or the Public Employment Bureau
in Toronto, Hamilton, London or Ottawa.

Lack of Food---threatens the Battle Line