

FARM AND DAIRY & RURAL HOME

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Toronto, Ont., April

Comm. of Conservation
Asst. Chairman Jan 19



THE ORPHAN.

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FARM AND HOME

We Welcome Practical Progressives.

& RURAL HOME

The Recognized Exponent of Dairying in Canada

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

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No. 17

Bringing All the Resources of the Farm Into Line

How Stumps and Stones May Be Removed—An Aid to Greater Production—By Gustav Delberger

THERE are two ways of increasing the acreage which may be cropped. The first is through the purchase of more land, the second by clearing up the idle acres which go to make up part of a great many farms, and by putting these to productive work. Of these two methods, the latter will usually be found to be the least expensive. A few years ago, the matter of clearing land was a difficult one. Stumps had to be removed, either by a block and tackle arrangement or through the use of one of the old-fashioned ponderous stump pullers. But since the introduction of stumping powder and of up-to-date high-powered stump pullers, it is poor economy to have high-priced lands taken up with stumps and stones.

Getting Rid of Stumps.

After the rains have softened the ground sufficiently, smaller stumps and roots may easily be grubbed out or pulled with a team of horses. Larger stumps, if resinous, may be burned by burning two holes in the middle of the stump, each about two inches in diameter and setting fire either by dropping in red hot coals or a red hot iron bar, or by lowering into the hole a sash cord fastened to a wire. After the upper part of the stump has been burned away, the fire may be kept up by throwing in the bark and litter that are always to be found nearby. By this means the main part of the stump is burned away, leaving only the larger stringers with their small roots. These may be pulled out with a team. This leaves only a few small roots to be grubbed out by hand. A man could clear about one acre a week by this method.

To-day, powerful one-man stump pullers are on the market, with a pulling power of 48 tons or more on the stump. This usually brings out fir stumps as large as five feet in diameter, roots and all, without the use of blasting powder. Powder, however, is used more or less on large oak stumps, or where the ground is hard to dig. The one-man stump puller using dynamite exclusively requires an expert to know where to place the charge and the number of cartridges necessary to lift out the stump. To a beginner this may prove an expensive, and perhaps dangerous proposition. The one-man stump puller is about the cheapest method of clearing land of stumps and big trees, and with a little blasting powder on very large stumps, a man can clear an acre in from one to two days.

Poplar Bushes.

Poplar bushes are about the easiest to clear, but usually where they grow are stones, so you have to be careful with sharp axes. I pull them with a team by hitching a logging chain (I think a wire cable would be better, and not apt to get twisted and break), 8 to 15 feet from the ground, to the poplar, taking care not to hitch too high on a thin one so as to bend or break it, or too low on a thick poplar to lose leverage power. This is the most important point. I used a pulley arrangement and a 1½-inch rope in the pulley. One end was fastened to a thick poplar for anchor and run to pulley No. 1, and pulley No. 2 had a hook for the logging chain which was fastened to the tree. The rope used was 100 feet, but it could be longer. It would save frequent change of anchor to have a medium sized team and one man with a sharp axe at the tree to help along.

I am pulled out poplars up to eight inches in diameter with roots and all. If you have poplar stumps do not attempt to pull them out with a



Clearing Land With a Hand Stump-puller.

puller by hitching on the top of the stump. The puller will break off and leave the roots in the ground. You are then worse off than before. The best implement to get a hold of these is a root hook (easily obtainable), or have two steel plow beams bolted together and spread apart about twelve to fourteen inches, where they are bolted to the land side on the plow. You can fasten handles and use it also as a root cutter by attaching straight cutters to the beams. Fasten clevis on the bolted ends and you have a root hook as strong as money can buy. This hook on the stump and a good anchor, and a stump puller or a good team with the blocks on the other end will bring the stump and roots out.

Willows are the most difficult to combat on account of their long root system, and especially when they have been burned off on the top or dry. The larger the willows the easier they are to pull by slinging a logging chain or cable as low on the bottom as possible around the bunch. If the bunches are not large you can sling your chain around the next bunch up to six, or as low as your chain or cable is, always having a little slack in your chain hook at once, but not after the other. Pullers and anchors are also to be used for heavy work. For burnt off or dry willows use root hook as described for poplar stumps.

Getting Rid of Stones.

On my farm I am blessed with stones, large and small. I save them all except the large ones, which I bury. A stone as large as a piano box may be buried in about half a day. Commence by digging a trench around to find out the size and nature of the stone, you can undermine one end. Lift with a wooden post, then dig out the soil beneath the other end, undermining alternately opposite sides will let the stone down to a depth of at least four to six inches deeper than you expect to plow. If the stone is on the surface, it is best to dig a hole alongside of it, and tip the stone in the hole. Be careful not to dig too close to the stone, lest it slide on top of you. It is better to do a little lifting with a crowbar and coax the stone into the hole than to run chances. It's always safer when two men work together.

A stone not suited for interment, or one that may be useful can be attacked with a crowbar, sledge hammer weighing about ten pounds and wedges. Be-

fore attempting to slam the rock, dig around it, prop it up and put stones underneath. Then look for the grain of the stone. Most every stone has a grain like wood, and if you hit it on the right spot it will break.

Never hammer a stone when on the ground. The earth gives it a splendid cushion against your blows, and hides its vulnerable parts. Don't lose patience, for if you do the rock will get the best of you. It may resist stubbornly, but will yield suddenly, just when you perhaps are ready to quit.

Splitting Stones.

There are three other ways to get even with stones. First, by drilling a hole ½ inch in diameter, six or eight inches deep. Put a little water at the bottom of it, cut a soft wood plug to fit tight in the hole, wet it and drive it down. Give the plug plenty of time to soak up the water in the bottom of the hole, which will swell it up and make a still tighter fit. Now, drive into the centre a round tapered steel wedge, the point of which is slipping back. Driving the wedge from a heavy sledge hammer will split a rock of quite large size.

Second, by drilling a hole as before, but a little deeper. Pour water in hole in the fall, plug tight and the expansion of the water freezing will usually split the stone.

Third, where plenty of bush wood is around, firing has been very effective on rocks. Dig a trenching up with an old sheet iron to keep the heat in. After the fire has been going about three or four hours (according to the size of the rock) dash a willow or pileful of water, cold, on the stone. You will hear it crack, and with the top of a crowbar you can reduce the size considerably. Look for the grain. Flat wedges you may split it in two. Tough stones may require two or three firings before they give up.

When you're got your stones out, place them on the farm where they will never be in the way or have to be moved again. Dynamite is the quickest and easiest way to get rid of stones but it costs money, and is always a dangerous agent to work with.

Better results are obtained by feeding young calves three times a day, with the periods between feeding as nearly equal as possible. When fed in this way the calf does not overload its stomach, and the digestion of the feed is more evenly distributed. Regularity in feeding is important. When calves are fed but twice a day, the feeding should be as nearly as possible 12 hours apart.

In the United States corn belt where a farmer is growing 10 acres of corn for ensilage and 10 acres for husking purposes, he is being asked to seed the 10 acres for ensilage with southern varieties, and sell his surplus of home grown seed to his neighbor, who is not so fortunate as to have a supply. Mr. P. L. Fancher, Ontario's corn specialist, suggests that corn growers in southwestern Ontario follow the same practice.

Silage Making in B.C.

Clover Silage Equally Acceptable with Corn

P. H. MORSE, Colony Farm, Essendale, B. C.

In the lower Fraser Valley, in B. C. substitutes for corn in making silage have been used to a large extent every year, and more especially during the past few years, owing to a very large increase in the number of silos. The number of silos has increased over 300 during the last five years. The predominating type is the wooden stave, 2 x 6 inches, and the staves one piece for the entire length of the silo. Corn is grown on nearly every farm, but nevertheless nearly every dairyman makes some silage from clover or from peas, oats, and vetches or peas and oats alone.

My experience has been chiefly with clover and grass mixtures, and after the second attempt they have given me very gratifying results. The first attempt was made with longer clover put in with the horse fork outfit. This was decidedly unsatisfactory. It could not be packed hard enough. The labor of getting the clover into the silo and out again was too great, and the quality of the silage was very poor. The flavor may have been fair, but the aroma was so bad that it baffles all description. The next season we cut the clover in two-inch lengths and it was a great improvement, but not just right. However, the cattle ate the silage readily, and produced well when fed on it.

The following spring (1912), we had the first real success. The crop was common red and alsike clover, orchard grass and Italian rye grass. It was cut early in June, just as the blossoms were beginning to appear. The weather was wet, and the crop green. It was mowed, raked, and put into the silo without being allowed to wilt. The cutter was set for a half-inch cut, which gave silage cut from one-quarter to one-half inch in length, but the average would not be more than half inch long. The distribution pipe was used on the inside of the silo, and one man did the tramping. About 100 tons of green material were put in from eight acres, which was only an average crop. This material was fed out the following winter. It turned out in excellent condition, and the stock ate the silage just as readily as they did the corn put up the same year.

Clover Silage Every Year.

Every year I have followed the same method of procedure, and have not had a failure since. If the weather and the crop was dry, I always added some water through the blower, and found that it paid me well. A little extra water did not do any apparent harm. The water added to the semi-dry material certainly ensured the close packing of the silage, which, along with the short cutting, allowed an almost perfect exclusion of the air, which in turn means good silage. In most carefully conducted trials at the Experimental Farm at Agassiz, clover and grass mixture silage gave equal returns when compared to corn silage for milk and butter production. Both kinds of silage were valued the same price per ton in the trials, but it is worthy of note that the clover silage did not cost as much as the corn. However, we could not grow as much clover without the corn on the rotation or as much corn without the clover, so that the difference in price is only a temporary one unless one has a specialized system of farming.

Our silo of about 100 tons was filled with peas

and oats. The same precautions were taken as when we made clover silage. The results were most gratifying. The silage was excellent and the crop yield was about 14 tons per acre.

Clover Silage in October. Last season I made silage from a mixture of red clover and timothy put up in October. The crop was very rich in timothy and the clover had been frosted some. However, we are seeded it out at the present time and the quality is good. About one day after we changed from corn to clover, the cows did not seem quite so enthusiastic about the change of silage, but in a day or so they were eating it as readily as they were the corn, and there was not any change in the milk flow or in the percentage of fat as noted on the cows under official test.

In this climate, where clover and grass mixtures are ready to cut in June, when the weather is usually damp, and very unpleasant, it certainly pays to put up some part of the crop as silage. It is very handy to have during a dry spell in the summer, and decidedly more convenient than breaking up a team to haul green clover in an attempt to keep up the milk flow during a busy time in harvest.

Harvest clover or clover and grass mixtures when they are fit for the best quality of hay.

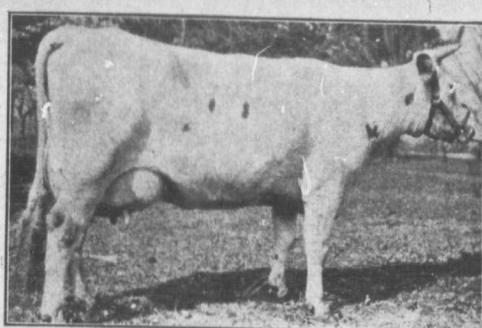
Harvest peas and oats when the oats are in the milk or soft dough stage.

Chop all kinds very short, One-half inch length gives good satisfaction.

Pack material in silo as firmly as possible, either by brute force or by adding some extra moisture, but pack it hard.

Tramp the surface thoroughly every day for a week after filling has been finished, and add a little water each day.

Result: An excellent form of corn substitute silage.



Calmety Snow Michtelth 2nd—A Canadian Champion.

The new Canadian Champion 8r. three year old, has an R. P. of 31 milk 23.74 lbs. butter 1.06 lbs. Besides this she has other excellent records, representing every divider R.O.P. as a yearling to her latest record of 672 lbs. milk and 32 lbs. butter in seven days; 45.2 lbs. butter and 1,235.5 lbs. milk in 14 days; 32 lbs. butter, 1,925 lbs. milk in 20 days. She has given over 100 lbs. milk in one day.

The drag or spike-tooth harrow, too, may be employed advantageously in seed-bed preparation, especially following the disc or roller to restore a mulch or blanket of soil to check evaporation of moisture. It is also a useful implement in the corn field a few days after sowing corn and after the corn is up to stimulate weeds and encourage germination of weed seeds, and to restore the essential mulch.

Seeding—This operation is now done by means of seed drills. Several types are on the market, but the single disc drill is probably most popular.

Rolling—The roller is too frequently used to put a finishing touch to the field after seeding. It may be so used to advantage on light soils, but even then should be followed by the drag harrow to break the smooth surface. The chief use of the roller, however, should be to firm and crumble the soil before seeding. It should not be used for very damp soil, especially clay; let the surface dry first then use the roller to break the crust.

Where implements are to be purchased it should be borne in mind that larger implements requiring from three to six horses handled by one teamster provide a means of solving, to some extent, the present manual labor problem. Besides, the work done in this way is accomplished economically, and thus tends to keep down the cost of production of crops.

Plowing may be speeded up by using two-furrow teams. Double disc harrows make a thorough seed-bed in the least time. The horse disc seed drill is efficient. More sections added to the drag harrow reduce the time required for this work.

Apply Manure Lightly and Often

Some Experimental Evidence on the Question

A FARMER recently complained of his ill luck, saying that his potatoes grew "all tops and no tubers." When asked how much farm manure he used he stated that he applied "from 20 to 40 tons per acre." Thirty tons of average farm manure contain 300 pounds of nitrogen, or as much as is found in a ton of nitrate of soda. They furnish more phosphoric acid than is found in a half ton of acid phosphate and more potash than occurs in one-fourth ton of muriate. If farm manure is worth approximately \$2 per ton on the basis of its plant food content, he was applying \$60 worth to an acre, or at the monetary rate of one and a half tons of a high-grade commercial fertilizer. It is now well understood that liberal applications are ill advised; that it were better to spread more thinly over larger areas; that eight or ten tons is sufficient acre dosage under most normal conditions; that more than this means waste in that the excess of available plant food, particularly from the urine, is apt to wash away and that crops cannot profit by the excess.

Furthermore, one should remember that farm manure contains more nitrogen in proportion to their plant foods than crops can use. It is on this account that crops are apt to lodge when large applications are made. It were better to use moderate amounts of farm manure, eight to ten tons per acre, and to add some acid phosphate than to kill with kindness.

The Pennsylvania station applied farm manure to a rotation of corn, oats, wheat and hay at the rate of six, eight and ten tons per acre every second year during 25 years. The average crop increase for each

(Continued on page 7.)

Cultural Methods for Eastern Canada

As Recommended by the Experimental Farm
SOIL management or cultivation in its several phases is a very important factor in crop production. On the Central Experimental Farm, Ottawa, and several of the branch Experimental Stations in eastern Canada, methods have been investigated for several years. The results obtained have warranted the following recommendations being made as applicable to average conditions on eastern Canada farms.

Plowing is the basic cultural operation. It is, therefore, important and should be performed with care and judgment. No definite rule can be laid down as to the best method of plowing. A safe rule, however, is to plow only when the soil is in shape, not too wet, especially if of a heavy clay nature. Plow deeply in autumn, as deep as the surface productive soil will allow turning an up-standing furrow. Plow shallow in spring, turning a low-lying or flat furrow. Plow well, turn all the land and finish with straight even furrows and lands. Let the plowing be a credit to the farmer, a reflection of his character, a standard for other operations and an incentive to less thorough, though willing, workers to do better.

Harrowing—Of the several implements on the market for performing this work the disc harrow is the most suitable for preparing soil for seed after it has been plowed. Through cultivation at this time it is indispensable and the disc harrow should be used until the surface of the seed-bed is smooth and friable and the soil immediately below is firm and solid.

Data, the Record of Performance Champion of Canada

Dana's record is 27,128 lbs. of milk and 1,648 lbs. of butter figured on an 80 per cent basis. Her milk record is the largest yet reported for a cow qualifying in this test. Her butter record stands third. Her highest day's milk was 167 lbs. Her owner, Mr. Jas. Knapp, of Merrickville, tells us that Dana has always been a great performer. As a three-year-old she gave 15,952.3 lbs. of milk and 784 lbs. of butter, and at the Ottawa Winter Fair in 1916 she was grand champion over all breeds in the dairy test.

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A nicely illustrated and handy booklet of 80 pages—containing practical pointers in simple language on sheep raising and wool marketing.

A few good sheep, with ordinary care, will bring in more wool in a year for the amount invested than any other branch of an average mixed farm.

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WOOL FURS HIDES



On the Task at Hand

THAT guy had something in his brain who wrote that "distant fields look green." For every chauffeur seems to yearn to try the road "just round the turn." It matters not how soft the berth a man is in, he wants the earth. John Thomas covets Bill Smith's land and Smith would like to make the sand that Tom Jones "picks up easy's seat," and so it goes from this to that. But never had I met a bloke who longed to wear a poet's cloak until a chap, not worth his salt confessed he envied Uncle Walt. This neighbor man was big and strong, but never seemed to get along. His legs were lean, his steers were poor and burdocks grew about his door. Instead of reaping bumper yields, his eyes were fixed on distant fields. So, when one day this gink dropped in with sunken eyes and drooping chin, I leaned upon my trusty hoe and listened to his tale of woe.

"For years I've planted corn and oats," quoth he, "I've milked the

peaks. For sundry bills I need the wheels that all the leading papers pay to Uncle Walt for ode o' lay. And speaking of this change de loose, 'tis said Walt Mason—like the goose that turned out fruit of solid gold, that ne'er went bad on growing old. He stacks his piglets behind the door, he fills his socks and feeds the poor. So if Old Walt should chance to croak, I'd like first-rate to buy his cloak.

"Stall-feeding calves and growing pigs and eating pork and beans and rigs is not the life for me, I think—it almost puts me on the blink. Our moolie cow won't give sweet cream, the hens won't lay; in fact, 'twould seem as if the farm has got my goat, so if you find Walt Mason's coat, just ship it on express or mail and I'll remit the useful kake."

"What ho!" said I. "Gadzooks, forsooth, you're nutty, man. You must, in truth, have hookworms in your dome of thought. Each man should use the brains he's got. Old Walter's mantle wouldn't hang upon your shoulders worth a dang. And if you wait for him to pass, to close his eyes and push up grass, you'll wait a blasted long while. You'll find that Walt is not the dying kind. And hanging round won't feed the pigs, nor grease the axles of the rigs. So up, my friend, skidoo, go hump, and keep your horses on the jump. Tear

Apply Manure Light

(Continued from

ton of manure was \$2.16 for the eight, and \$1.80 for application. Using four, eight and 12 applications, secured \$1.43 per ton for the ton for the eight, and \$1.10 for the 16-ton application.

Not only does it afford a larger return the same time a larger covered each year. An eight or ten tons once should prove more profitable to 20 tons once a 20-ton application at gives a feast at the end of the at the end, and waters profit full more

When land is plowed by oats, seeded second year, and is left at three or four years of the manure will be two light applications eight or ten tons per ac

BOOKS

Make yourself more efficient, improve your spare time by reading. Send for our descriptive catalogue of Farm Books. A postal will bring it to your address. Write.

Book Dept. FARM & DAIRY Peterboro

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For High Production

LOOK FOR THE STARS

Every page in the Rennie 1918 catalogue is a guide to War-time production. In it there are a number of outstanding values and these are called to your attention by a star border such as encloses this.

SEEDS of high productive power are a vital War-time necessity. Not only must every square yard of available ground be made to produce, but Rennie's Seeds must be sown to ensure the finest possible crop. It is a War-time duty. When buying from dealers insist on Rennie's. The following seeds can be obtained from dealers or by mail.

PLANT THESE NOW!!

	Pkt.	oz.	¼ lb.	lb.	5 lb.
BEEF —Crosby's Egyptian.....	.05	.25	.85	2.50	
CABBAGE — Danish Summer Roundhead.....	.10	.50	2.75		
CARROT — Rennie's Market Garden.....	.10	.40	1.20	3.50	
CORN —Rennie's Golden Bantam.....	.10		.25	.65	
LETTUCE — Burpee's Earliest Wayhead.....	.10	.35	1.00	3.00	
ONION —Early Yellow Danvers.....	.10	.40	1.35	4.40	
PEAS — Little Marvel.....	.05	.35	1.00	3.75	
PEAS — Senator—Best Second Early.....	.10		.15	.45	2.00
TOMATO — Bonny Best.....	.10	.60	1.75		
TOMATO — Blue Stem Early (King Edward).....	.10	.60	1.75		
TURNIP —Breadstone (Swede).....	.05	.25	.75	2.50	

	Prepaid	Not Prepaid
lb. 5 lbs. lb. 5 lbs.		
ONION SETS —Yellow Multiplier Sets.....	.20	1.40
White Multiplier Sets.....	.50	2.25

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New Giant Asterium—Mixed.....	.15
Rennie's XXX Defiance Balsam—Mixed.....	.15
Rennie's XXX Hybrids Climbing Nasturtium—Mixture.....	.10
Rennie's XXX Chameleon Dwarf Nasturtium—Mixture.....	.10
Grandiflora Phlox Drummond—Mixed.....	.10
Rennie's XXX Giant Spencer Sweet Pea—Mixture.....	.15
Rennie's XXX Mammoth Mixture Verbena.....	.10

When buying from dealers, insist on Rennie's. If your dealer hasn't them, we will ship direct.

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



Five in the bed and a small quill.

cars and goats. I pluck my geese; I sell my beans; and stuff the greenbacks in my jeans. I storm the markets, ditch by ditch, but somehow, Sam, I ne'er grow rich, for when I scrape up thirty yen, I find my piglets need a pen. My bull breaks loose and raises Ned. The shingles all blow off my shed, and always when the bills pour in, my little sock is minus tin.

"I'm tired of this production wheeze by guys that set the price of cheese. To spout to others would be nice, instead of listening to advice. Why should I toll my life away at pulling stones and baling hay, when I might just as easy wear a limp smile and six-inch hair? A poet's life to me ap-

up the sand with might and main and bind you sheaves of golden grain."

Then up he jumped and grabbed a hoe and set the thistle, row on row. He pruned his corn, managed his hops, and later on he had such crops that when he hauled them to the cans he had to borrow eighteen jars to hold the kale that tumbled in. Full soon he had sufficient tin to paint the barn blue, green and red, and build a sly to the shed. And from a friendly agent man he bought on the installment plan two kegs of beer, a set of books, and chairs for all the angle nooks.

Sam Ray

The Fr "Tight"

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Apply Manure Lightly and Often

(Continued from page 5.)

ton of manure was \$2.15 for the six, \$1.66 for the eight, and \$1.44 for the ten-ton application. The Ohio station using four, eight and 16 tons per acre applications, secured a return of \$2.43 per ton for the four, \$2.13 per ton for the eight, and \$1.44 per ton for the 16-ton application per acre.

Not only does a light application afford a larger return per ton, but at the same time a larger area may be covered each year. An application of eight or ten tons once in three years should prove more profitable than one of 16 to 20 tons once in six years. A 20-ton application at long intervals gives a feast at the outset and a famine at the end, and the drainage waters profit full more than the crop.

When land is plowed for corn, followed by oats, seeded to grass the second year, and is left in hay for the next three or four years, the best use of the manure will be made to make two light applications; the first of eight or ten tons per acre on the corn,

the second at a top dressing the first or second year of hay. By thus dividing the application, both secure benefit from its use. Where there is not sufficient manure available to make two such applications, the crop which is thought to be the most profitable should be favored.

Will Pay Laborers Fares

OWING to a reduced fare which the Ontario Government has secured from the railways, the Trades and Labor Department will this season pay the fares of bona fide farm laborers to their destination. Persons desiring to go on farms and who make application for work through Government employment bureaus, will be given an order on the railways for a ticket, after they convince the department officials they are strictly farm laborers. A penalty will be imposed for violations of the order, such as persons securing free transportation and on arrival at their destination not engaging in farming.

The minimum fare to be charged the Government will be \$1, which will be for any distance up to one hundred miles. Any distance greater than that will be charged one cent each additional mile. This arrangement will come into force very shortly, the exact date being announced later.

It is expected that the action on the part of the Government will result in more men spending several weeks on farms this summer. The average distance the department sends men, according to Dr. W. A. Riddell, Superintendent of the Trades and Labor Branch, is about 50 or 60 miles, so that the cost to the Government will average about two cents a mile. The Government accepts no responsibility as to providing transportation for the return journey.

Bonus for Turnip Seed Growers

THE seed survey conducted by the Seed Branch, Ottawa, indicates a prospective shortage in Swede turnip seed for the season, of 1919.

Present retail prices of Swede seed average about \$1.50 per lb. in Canada and \$2.35 per lb. in the United States, and present wholesale prices would be about two-thirds as much.

Farmers who have medium-sized, sound, shapely roots, true to variety, are advised to plant them out early this spring for seed production. Different varieties grown by neighbors should be planted at least half a mile apart to prevent crossing. Any soil which will produce a good crop of turnips is quite suitable. The roots should be set out 18 inches apart in rows three feet apart, and planted just below the surface of the soil. A location beyond the reach of poultry and sheltered from prevailing winds is most satisfactory.

Growers producing from 50 to 5,000 lbs. of Swede seed for use in Canada, and whose seed crops and cleaned seed pass our inspection, will be paid a bonus of 15c per lb. for the year 1918 only. Application for field inspection should be made before July 1st, addressed to the Seed Commissioner, Ottawa.

The Frost "Tight Lock"

Unlike Any Other

The Frost "Waved" Laterals

Right at the beginning, please remember that FROST fence is unlike any other woven fence. FROST fence is exclusive in design. Its lock is different. Its wire is different. Its galvanizing is different. The weaving of the fence is different. It's the combination of all these that makes

Frost Fence First

The FROST lock is unique in construction. It doesn't look like any other fence lock—and most fence locks are similar as peas in a pod.

The FROST lock will stand strains that will loosen and often pull other locks to pieces. Look at it yourself and see how much more substantial and secure the FROST lock is.

Then look at that special FROST "wave" in the laterals. This long and deep wave gives a wonderful degree of spring and reserve power to FROST fence. It puts real backbone in the fence.

The stays on the FROST fence are straight and stiff and the spacing is accurate. Our special looms weave FROST fence more slowly and consequently the fence looks neater and better in the rolls, and stretches up straight and true when putting it up. It is a fence the farmer is proud to show to his neighbors.

By making FROST fence complete in our own mills we are able to produce a fence that will outlast all others. We put the quality in the wire, in the galvanizing and in the weaving that puts FROST fence in a different class as compared with the ordinary woven fences made of common commercial wire. You can see the difference by comparing FROST fence with others.



Frost Neat Straight Rolls

Frost Steel and Wire Company, Limited
Hamilton Canada

Frost Straight Stays and even spacing

A style for every purpose

Crop Feeding and Canadian Harvests

You are starting off the young crops. Their growth and yield depend upon how well you have prepared the soil and how much suitable plant-food the crops have at their disposal.

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Treatment of Potatoes per acre	per Acre
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Manure 15 tons plus 50 1/2 lbs. high grade complete fertilizer	121.41
Manure 7 1/2 tons only	84.30

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POULTRY

Leaving Eggs in the Nest

DOES allowing the eggs to accumulate in the nest cause increased loss? The theorist claims the hens will lay better if the eggs are not gathered until night. His argument runs like this: "You may have observed that the nest first occupied in the morning receives the majority of eggs for that day. There seems to be a sort of competition among them to see how many eggs they can get together in one place. If removed several times a day they seem to lose their incentive for doing their work. Think back, and you will see that it is only following a natural instinct in not wishing to deposit any more eggs where all others have been destroyed or taken."

That is an argument upon which a sermon could be preached. That it is incorrect is testified to by the trap-net men, who gather and record each egg as laid. No eggs are allowed to remain in the nest. Does this removal lessen the number of eggs? That can be answered. Yankes fashion by asking the question: "Was the 200-egg hen ever known before the trap net was invented?" These theorists should check the records on the farms where trap nets are in operation, and they would be surprised to learn that fifty hens, selected for egg production and regularly cleaned, are turning out two to one more eggs than the same number on farms where the eggs remain in the nests until night. And why that difference? For the reason that the trap-net man each year picks out his best layers and breeds only from them. The good qualities are annually improved to the new generation. —M. K. B.

Feeding the Chicks

By M. A. Jull, Macdonald College.
CHICKS should not be fed until they are about 36 hours old. Indigestion and bowel trouble often result from feeding too soon. A little grit, clean water and sour milk should be given first. The latter is one of the best poultry foods we have, and if given at all it should be given regularly. Sour milk seems to keep the digestive tract of the chick in good condition, and it does much to combat white diarrhoea.

The first grain feed given should be a moistened mash made up of some of the ground grains. A good mash is made up of four parts of bran, four parts of fine feed, two parts cornmeal, one part middlings, one part beef scraps, and one part chick grit. All these parts are by weight, and the different materials are mixed thoroughly. The mixture is just slightly moistened with water or sour milk, if it can be obtained. This moistened mash is fed to the chicks three times a day, morning, noon and evening, for several days. During the same period the chicks are fed in the middle of the forenoon a mixture of four parts bread crumbs and one part of hard-boiled egg, and in the middle of the afternoon they are fed oatmeal. That is, the chicks are fed five times every day, and this rate of feeding is continued until the chicks are about five weeks old. The order of feeding is mash in the morning, bread in the middle of the forenoon, mash at noon, oatmeal in the middle of the afternoon and mash in the evening.

When One Week Old.
When one week old about one week old the mash fed at noon is changed for a feeding of finely-cracked corn and wheat or a good

brand of chick feed, which can be purchased on the market. When the chicks are about two weeks old the bread and egg mixture, as well as the oatmeal mash feeding. At the same time the mash feedings which were being given in the morning and evening are replaced by feedings of cracked corn and wheat. The cracked grain is scattered on the cut straw or chaff on the floor of the house. That is, now the chicks are getting cracked grain in the morning, mash in the middle of the morning, cracked grain at noon, mash in the middle of the afternoon, and cracked grain in the evening. This method is continued until the chicks are about five weeks old.

When the chicks are three or four weeks old it is well to place some mash in a dry form in a self-feeding box or hopper. A good dry mash is composed of four parts ground buckwheat screenings, two parts bran, two parts oatmeal feed, two parts beef scraps, one part cornmeal, one part middlings, and one per cent charcoal. These parts are by weight, and the screenings are mixed and placed in feeding hoppers in a dry state. The hoppers are left open so that the chicks can help themselves to the mash at any time.

When the chicks are five weeks old they are fed cracked corn and whole wheat in the morning and afternoon and moistened mash at noon. This method is continued until the fall of the year, when the cockerels are ready to be fattened and the pullets are ready to be taken to the laying houses.

It should be borne in mind that fresh water should be given the chicks every day. If sour skim-milk can be obtained it should be given regularly.

The chick grows very rapidly, and it requires to be fed well. Above all, it should not be fed too much at any one time, and it should be induced to take plenty of exercise. Free range conditions produce healthy chicks and cut down the cost of feeding.

Incubator Suggestions

IN running an incubator it is always advisable to test the eggs by candling at least once, and better twice during the hatch. This gives the operator a chance to study the growth of embryos, to watch their development. From the size of the air bladder at the different stages he is able to know whether he is supplying the proper amount of moisture in cases of low fertility, very frequently the eggs from two or three machines can be combined after the first candling.

On the seventh day the infertile eggs will appear clear and much like fresh eggs. These eggs will have a central dark spot and radiating blood vessels. There are always a number of germs that for various reasons of weakness start to develop and die. These will show up on the fourteenth day. They will appear grey and lifeless, the partially developed embryo floating about in the egg. These should be removed. They tend to lower the temperature of the machine and decay very quickly.

An electric flashlight makes a very good tester. Darken the room and pass the light around under the egg tray. The clear, infertile eggs can easily be detected. The same method can be used in candling for dead germs, but it will be necessary to turn the eggs about some to make sure of the absence of life.

If an electric flashlight is not available, a piece of cardboard with a round hole an inch in diameter cut in the centre will serve the purpose. With the cardboard held between the operator and a lamp, place the egg one at a time below the small hole. The embryo will be easily seen.—C. S. A.

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"The Earn a Living" is the best of the kind. It is the best of the kind of crumming days, against Saladin and in the twentieth century. It is the best of the kind of a man or boy in it did influence the time. History reads of boys, fire-couriers of their own selves together. Holy Land. With organization the task was undertaken and private hunger and privation almost remnant the sacred soil of dreams.

Such each soul there is in the heart of the Y.M.C.A. Boys found it in the "Farm and Garden" in Canada that "resplendent" knights have, little with the world is in arms. thousand Canadian and give" before less than ten dollars section of Y.M.C.A. houses and overs a thousand dollars thousand will go boys in India and an amount will be work in Canada. the money—fifty will be a gift from their fathers and grandfathers. Can't anybody act?

Over the permanent, no so-called pitiful me," but a trifle by-payer. It will be part of the larger of 115,000 will be Y.M.C.A. war men man separate and movement. Every this work will be a six thousand will as surely as do the errors. The most be so many of those which, as Lloyd G. years ago, to be six thousand boys' sixty thousand your boy be one of us?

It be done here that once is harassed to the redoubtable Canada which is wanted an me about, to the response to the challenge the original abode the ones you Canada! the top they will be from and for an it is a way Canadian and you're. They are shoulder to shou big brothers "over once of every cent tribute towards her when the bells toll with honor for the Allies.

How it will be given in Canada, as to be an opportu fifty" 110. It m with a Fiedon Can. There are three w money may be ra may earn it. (2) But he says, "Let it from his kind circumstances when Bell R. Very few

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Wanted! Six Thousand Boy Crusaders!

The "Earn and Give" Campaign of the Y.M.C.A.—John L. Love

WHEN the Knights of St. John, the Knights Templars and all the host of those heroic orders of crusading days, fought in Palestine against Saladin and his infidel hordes in the twelfth century, there was not a man or boy in the then Christian world uninfluenced by the chivalry of the time. History records how thousands of boys, fired by the dauntless courage of their sires, came forward to serve together and set out for the Holy Land. Without leadership or organization the almost unthinkable task was undertaken, and although honor and privation slow their thousands by the way, a small but undaunted remnant did actually reach the sacred soil of their noble young dreams.

Same such soul of knight errantry there is in the heart of every boy, and the wise and experienced leaders of the Y.M.C.A. Boys' Department have found it in the "Earn and Give" Campaign. Today in Canada there are six thousand "gentle Knights" who will cough a kopeck, tipped with silver dollars, at those evils against which the civilized world is at arms. Each of these six thousand Canadian boys will "earn and give," before October 1st, not less than ten dollars towards the prosecution of Y.M.C.A. work at home and overseas. Of the sixty thousand dollars thus raised five thousand will go towards work for boys in India and China, and a similar amount will be set aside for boys' work in Canada. The great bulk of the money—fifty thousand dollars—will be a gift from Canadian boys to their fathers and brothers in the trenches. Could there be a more kindly act?

Over the Top.

This campaign will be no futile experiment, no disastrous debacle like the so-called "puffs" "Children's Crusade," but a triumph of organized boy-power. It will parallel and be a part of the larger effort in May, when \$1,500,000 will be raised for the Y.M.C.A. war work, but it will remain separate and distinct as a boy's movement. Every boy who enlists in this work will be a crusader, and the six thousand will thus be a trench just as surely as do their big brothers overseas. The money they earn will be so many of those "silver bullets," which, as Lloyd George said three years ago, are to win the war.

Six thousand boys will "earn and give" sixty thousand dollars. Will your boy be one of those young crusaders?

Can it be done? Easily! We believe that once the latent boy-power is harnessed to this job, once every rebblooded Canadian youth knows what is wanted and how it is to be set about, there will be such a response to the challenge as will leave the original objective far behind. Once young Canada gets going "over the top" they will advance on a wide front and for an immense depth. It is a way Canadians have, both old and young. They will know that they are shoulder to shoulder with their big brothers "over there," and that every ounce of energy they expend, and every cent they earn, will contribute towards hastening the day when the bells shall ring in peace with honor for the Empire and her Allies.

How It Will Be Done.

How is it to be done? Every older boy in Canada, as far as possible, will be given an opportunity to "earn and give" \$10. He may give more, in sums of \$10, but not less. He will sign a Pledge Card to this effect. There are three ways in which the money may be raised: (1) The boy may earn it; (2) he may deduct it from his savings; or (3) he may deduct it from his allowance. Under no circumstances whatever may he solicit it. Very few boys will need in-

structions how to earn the money, but each local representative of the Campaign will conduct an "Employment Bureau," where all boys who have pledged themselves will find a list of available jobs. Any boy with sufficient independence and initiative to succeed without having recourse to the Employment Bureau will receive a special red seal on his certificate.

These certificates resemble bonds. They have detachable coupons, and whenever \$1 is paid in a coupon is detached and handed to the boy as a receipt. When all the coupons have been detached the certificate belongs to the young trader, and it will then be filed in and signed for him, to remain a permanent record of "something attempted, something done" in the great war.

Every boy knows the immense variety and interest of the jobs that present themselves during the long summer vacation, and those worthy of their Canadian upbringing, who handle a rake or a hoe, a rabbit hutch, pigeon loft, or even "keep a bee," will raise more than blisters if they set about it in the right way, as they are sure to do.

Why Not Be a General?

An interesting feature of the campaign will be the Military Competition to stimulate recruiting. As soon

as a boy signs the pledge card he takes rank as a private. His first recruit entitles him to the rank of corporal, and his second entitles him to the rank of sergeant. Each recruit elevates the boy one grade higher, and each new comer becomes a recruiting agent in his turn. From this happy appeal to the boy's competitive sense and his imagination, great results are bound to flow.

The tremendous task of organizing this "Earn and Give" Campaign is in the capable and experienced hands of Mr. R. M. Atkins, whose aptitude for work amongst boys marks him out as the obvious leader. The whole field of boy life is being busily and energetically organized, and Mr. Atkins' slogan is "Every older boy!"

Is your boy going to be a Crusader, or just a crusader? Think what it will mean to him. Sixty thousand dollars is a fine contribution from the boys of Canada. Sure! But think what the contribution will be to them! It will turn their vacations into something more than vacancies to be filled in anyhow. It will teach them that there is no idleness in work that is unselfish. It will give every boy an opportunity of finding by test where his natural abilities lie. It will be for both parents and boys at once a game, an intensely interesting experiment, and a genuine contribution to that world-wide struggle for liberty in which Canada and the rest of the civilized world is engaged.

The Ideal Seed Bed

THE Ideal Seed Bed for sowing small grain should be mellow, but well pulverized about as deep as the seed is planted. Below the depth at which the seed is planted, the soil should be firm and well settled, making a good connection with the subsoil, in order that the water stored in the deeper soil may be drawn up by capillarity into the surface soil. The firm soil below the sprouting seed supplies the necessary moisture while the mellow soil above favors the upward growth of the young shoots in the air and sunshine.

A loose deep seed bed is usually dependent upon rains for sufficient moisture to germinate the seed and start the young plants. If the grain starts it is more likely to be injured by short periods of dry weather, because of the rapid drying out of the loose surface soil. In such a seed bed the crop is more apt to "freeze out" in winter or "burn out" in summer than the crop growing in a firm, well-pulverized seed bed. It should not be inferred from this that land should not be plowed deeply; rather, deep plowing should be encouraged, but timely, so that the soil may settle and fill with moisture, and suitable cultivation should be given after plowing to secure a favorable physical condition of the seed bed.

Give the world the best you have and the best will come back to you.

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If you are roofing, or repairing roofs this year give your building the protection of Paroid. For instance, burning cinders falling on a Paroid roof die out harmlessly.

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BRINGING IN THE CASH

One way to do this is to increase your output by better methods of production—another is to conserve the feeding stuffs you now produce, making them go farther by carefully balancing the feeds. Study out this problem this winter. The one best book of which we know on this subject is "DAIRY FARMING," by Eckles & Warren. You can secure it from our Book Department. The price is but \$1.50, neatly bound in linen.

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SEEDS

SHEEP AND SWINE

The Care of Wool

DON'T tubwash your wool; the user does not want it and he can take better care of the washing than you can.

Don't keep the wool in the cellar before marketing for you are sure to lose money by having it damp. Dampness causes the wool to be discolored.

Don't leave the wool in the cellar for they will be taken off when it is graded and more wool with them than you would take off by clipping before shearing.

Don't tie the fleeces with sisal twine; use paper twine only. This can be had on application to the Secretary or Manager of the Canadian Cooperative Wool Growers, Ltd., 133 Simcoe St., Toronto.

Don't sell your wool to the peddler. If you have not a grading station near you, send it to the nearest Cooperative Wool Association, where it will be graded. Remember that the larger the quantity the better the price. 100,000 pounds is worth more per pound than 1,000 pounds to the wool buyer.

Don't depend on yourself to handle your lamb and wool crop, become a shareholder in the Canadian Cooperative Wool Growers, Ltd., and get the assistance of your fellow sheep raiser; it means a connection to your markets in the future.

Dipping the Sheep

THE dipping or treatment of sheep with some sheep dip (there are several reliable dips on the market) should be done early in the summer. The most effective time to dip is just after shearing, while the wool is short, dipping both ewes and lambs. It is well then to dip again in ten days to kill any newly hatched ticks. Repeat the dipping in the fall to clean up the sheep before winter.

Place the dip in a vat having a tight run-way for the sheep to go on while the dip runs back in the vat, thereby saving the solution. The finest kind of vat is made of sheet metal, but vats may be made from good matched, seasoned lumber, if the joints are filled with white lead and the inside of the boards heavily painted with good paint. The vats should be four feet deep and maintain their full depth for about four feet in length. In this part the sheep are immersed in the dip, keeping only the head above. After this four feet of level bottom, slatted bottom runs upward at an angle of about 45 degrees.

The vat is placed in a pit dug into the ground. A small enlargement of the excavation enables one man to stand alongside while his feet almost touch the bottom of the vat. The sheep are yarded and passed through a chute, one at a time, and banded to the man beside the vat. He immerses all but the head of the sheep well up the incline and are retained a moment to drain in a chute above a tight floor. A tight new wagon box is often used for this chute. The floor is sloped to drain back into the vat. When the dip has drained out sufficiently the sheep is released.

Feeding Motherless Pigs

COULD you kindly advise me as to the proper way to feed young pigs having lost their mother.—H. B. M., Bruce County, Ontario.

The rearing of a litter of orphan pigs is usually very difficult and troublesome, but with care and perseverance this can be accomplished. If the pigs are old enough to drink, this work can be done with greater ease than otherwise. If very young and unable to drink, it would be necessary to devise some receptacle with nipples attached thereto, so that the

little pigs may drink cow's milk. However, the little pigs are able to drink this milk can be fed in a small trough. The feeding should be done as near as possible a regular interval, starting with eight feeds per day and gradually diminishing to four feeds per day, the total quantity being during the day being slightly less than usual. By pigs being fed during four weeks of age the whole litter may be gradually diluted with skim-milk and at six weeks of age the whole milk discontinued and skim-milk used in its place. The little pigs should be taught to consume grain as young as possible. This can be best done in two ways: first, by scattering some soaked whole grain amongst the bedding of pen, and second, by mixing a small amount composed of middlings or shorts, in part, with skim-milk and fed separately in a trough. This should be aside from the regular whole milk ration. Feeders always find it advisable to give the whole milk or skim-milk to pigs during six weeks of age at a temperature of about ninety degrees. As soon as the pigs are accustomed to a grain ration the milk may be given dry or as soaked milk with or without milk, at a feed desirable on the part of the pig.—E. S. A.

Field Notes

By "Mac."

ONE of the things one notices while travelling about the country in the evening, when he is sitting around the fire, is the number of places where a lantern is to be seen going about the barn. To one not acquainted with farm life this would seem strange, many people imagining that the rule is to get and early to rise," applies particularly to the farmer. However, one who knows about farm life realizes that a lantern moving about the barn at night means a farmer doing up his chores, and at a time when he ought to be in bed, for 5 a.m. comes quickly. In spite of the oft-repeated statement that farmers do not quit work at six o'clock, there are many who do not, and even if they get their regular work in shape for the night at that hour there are a thousand and one of the things that have to be attended to that take a lot of time. In the present time of labor shortage I do not know of any other class of mankind who would spend as many hours going about with a lantern as the farmer, which should be done during the day by a second man, as that same abused citizen—the farmer.

The Farm Car.

In the course of a conversation with Mr. W. C. Prouse, of Tillsonburg, the subject turned to the farm car, and he gave me the following illustration of one of the many uses to which it can be put: "One day last spring we were out of chop. All the horses were at work in the field, and I had to get them in, as it was right in the rush of spring work. What I did was to tie the demora behind the Ford, load it up with 1,200 lbs. of oats, and trail it into town. I got it ground and trailed it back again. It worked fine. On only a few of the steepest hills had I a low gear, and I had all the spuds in town trying to sell me a genuine trailer."

Handling the Winter Manure.

There are many ways of handling the manure that is made during the winter months. The most prevalent way now is to draw it direct to the fields and spread it. This is a time in the summer and spring when some farms I notice, however, do

still adhere to the old plan of putting it in small piles to let the frost come out. Cases for handling avoid washing away manure in spring. This drawback to this system put on land that is in the spring. It prevents the plow from being pulled early when ready, it must stand unworked enough for them for the growth to be then drawn off.

A Small Farm Wagon
 A few weeks ago I saw with Collier B. B. up-to-date farmers which before the war was to handle quite a few years, however, they were repairing to do, and get satisfactory help for the same time work. The way we solved the problem was to do his share in the campaign. "I have that stands six feet looks able enough for me in just 16 years of experience just how grown boy can stand going to run the rick work by expecting him to do it. I cannot say my son and I will do even if it falls short share." This farmer in his ideas. They are good sound, able to give the next decade.

A Wise Farmer

"I suppose some of you should not worry problem," said a prominent one day as he talked the probability of doing his share in the campaign. "I have that stands six feet looks able enough for me in just 16 years of experience just how grown boy can stand going to run the rick work by expecting him to do it. I cannot say my son and I will do even if it falls short share." This farmer in his ideas. They are good sound, able to give the next decade.

Doing Without

I came across a herd day in one of our Ontario who formerly worked near London, England. I pressed him about Canada was the much of cattle and consequent for which was responsible. For instance, England would four men to hand alone, here would be one man. There is no shining and bright white starched suits must be scrubbed. The whole is no doubt of production, and necessary, and subjected very strict on these.

He said that after here he saw how cow milk could be produced this fine. He thought milk producers had for milk and help breeders have to come of the "dumb" would there too. "In fact, no doubt in many men are being drafted service, the Old Country being forced to adopt Canadian style and they can with less than."

Don't let rubbish eat the yard. Pile any manure and convert the rest to good dairy soil does "gritiness" in butter from the use of a poor

still adhere to the method of putting it in small piles to be spread when the frost comes out. The idea in most cases for handling it this way is to avoid washing away when the snow melts in spring. There is one great drawback to this system, especially if put on land that is to be plowed in the spring. It prevents the ground under the piles from thawing out. Thus, instead of getting the field plowed early when the rest of it is ready, it must stand till the piles are thawed enough for spreading and then for the ground they cover to become thawed out.

A Small Farm Well "Manned."

A few weeks ago I spent an evening with Collier Brothers, the Ayrshire breeders of Beachville. These up-to-date farmers own 175 acres, which before the war they were able to handle quite satisfactorily. Last year, however, they had considerable repairing to do, and were unable to get satisfactory help to do it and at the same time work the farm. "The way we solved 'no problem,'" said one of the Messrs. Collier, "was to rent half of the farm and sell some of our cows. Now we can get along without hiring help, and while we have to work considerably harder than men of our age ought to work, we always manage to get along somehow."

A Wise Farmer and His Boy.

"I suppose some people think that I should not worry about the help problem," said a prominent dairyman one day as he talked to me about the probability of his being able to do his share in the greater production campaign. "I have a son at home that stands six feet two inches and looks able enough for anything, but he is just 16 years old. I know from experience just how much an overgrown boy can stand, and I am not going to run the risk of overworking him by expecting him to do a man's work. If I cannot secure hired help, my son and I will do what we can, even if it falls short of our allotted share." This farmer is not far wrong in his ideas. There will be a great need for sound, able-bodied men during the next decade.

Doing Without the "Fuss."

I came across a herdman the other day in one of our Ontario dairy barns, who formerly worked on a dairy farm near London, England. He said what impressed him most when starting in Canada was the much greater number of cattle and consequent greater return for which one man was responsible. For instance, a herd that in England would probably require four men to handle in the stable alone, here would be handled by one man. There everything was kept shining and bright. Men must wear white starched suits and the stable must be scrubbed every day, etc. This, while it no doubt added to the cost of production, was considered a necessity, and shipping rules were very strict on these points.

He said that after a few months here he saw how clean, wholesome milk could be produced without all this fuss. He thought that if British milk producers had the same prices for milk and help that Canadian breeders have to contend with, much of the "fuss" would be eliminated there, too. "In fact," he concluded, "no doubt in many ways, now that men are being drafted for military service, the Old Country farmers are being forced to adopt more of the Canadian style and get along as best they can with less help and less fuss."

Don't let rubbish accumulate around the yard. Pile any good lumber neatly and convert the rest into firewood.

Good dairy soil does not leave the "gritiness" in butter which resists from the use of a poorer brand.

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FOR real service under adverse conditions the McLaughlin has won an enviable reputation.

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Canadian Victory Corps
R. L. F. Feature
10/12/17

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Comments:

I arrived in France, April, 1917, with one of your cars (Model D-45 Touring). Up to now it has covered over 18,000 miles over all conditions of roads, some so bad one would never think of taking a car in private use.

It is only fair to you and your car that I should tell you that up to now it has given no trouble nor has it had any replacements except one plug and the carbon removed. The oil we use getting not always the best.

This statement is correct and will bear any investigation. Have had such pleasure with the car, compared with others, suggested it to me that I should write you this note, which may be of some use.

Yours sincerely,

CHAS. P. BAILEY,
a/c. Corporal.

The driver and photograph in a copy made from the original and from photographs published in the issue.

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And that is not the only advantage of the Toronto. The selected spruce staves are DOUBLE tongued and grooved, so that the air—and cold—cannot penetrate—you get better ensilage and a longer lasting silo.

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You Don't Permit Your Hired Man to Throw Away Cream



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SHARPLES SUCTION-FEED CREAM SEPARATOR



Sharple's skims clean at any speed! It is the only separator that will do this, as Suction-feed is an exclusive Sharple's feature. Sharple's Tubular Bowl has double the skimming force of any other; yet is easy to turn. Containing only one piece and no discs, it is by far the easiest to clean. Over a million dairymen are using Sharple's Separators. Why not you? Write for catalog to nearest office, addressing Dept. 77

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A Matter of Life and Death

There is no more vital question before the poultry raiser right now than that of saving Baby Chicks. The most important factor is proper feeding. Wrong methods of feeding mean, literally, life or death to the chicks.

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brings the chicks safely through the critical first three weeks. Prevents the usual heavy mortality in young chicks. Insures rapid growth, sturdy constitutions and freedom from intestinal trouble, leg weakness and other diseases common to the newly hatched. Start right with "Pratt's." Feed it exclusively for the first three weeks. About one cent per chick is all it costs for the entire period.

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At your Dealer's in popular-priced pigs, also in money-saving 50-lb. and 100-lb. bags.

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PRATT FOOD CO. OF CAN., Ltd.
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P-3



The Requirements of the Butter Market *

Canadian Creamerymen Should Aim to Produce a Mild-Salted, Pale Colored Butter—P. W. McLagan, Manager, Lovall & Christmas, Montreal

UNTIL a few years ago the requirement of the Canadian consumer was for a high-salted, high-colored butter, but in more recent years this demand has been radically changed throughout the west by the influence of the importation of New Zealand butter to British Columbia. New Zealand butter is a butter of a high general quality, and its character is that of light-salting and pale color, being so made to suit the British market. The advent of this butter quickly changed the prevailing desire of the British Columbia market into one for a butter which is light-salted and light in color, although still packed in 56 lb. boxes. This preference has now generally extended to all the Prairie Provinces, and the characteristics of the production of butter in respect to salt and color throughout the Northwest is for mildness of salt and paleness of color.

When we go further east, however, we find that the preference of consumers in the home market is for relatively high salt and consequently full color. There is a slow modification of this toward milder salt and lighter color, especially in Montreal and the Province of Quebec, but still the popular expectation is for a salt and color full color. This situation raises the question of whether it is desirable for producers of butter to produce variety of character in these respects. Which practice would obtain the highest average price for the producer? I think the answer to this question is largely determined by the question of whether or not the whole country produces an important surplus which must be exported. It is a fairly generally accepted axiom that the surplus a firm or country has to sell of any article principally determines the price of the whole.

If we are going to prosper along dairy lines in this country, we shall have surplus of butter production each year beyond what we are capable of consuming within this country, and there is only one place where in times past we have disposed of this surplus, and where probably in the time to come we shall be able to dispose of it, whatever it may be, and that is the British market. To get highest prices that market will afford, it is necessary to send the kind of goods that the people there prefer.

The British consumers are sensitive of qualities for the reason that they are catered to by all the countries of the world having surplus product to dispose of. They require pure, clean flavor, waxiness of texture, pale color, mild salt, and the package they prefer is the 56 lb. cube box. If we are going to get the best price that this market will afford, we must, for their taste, conform to their requirements.

The question arises whether we can arrange for the surplus to be of that character, and yet upon in different sections of the country other characteristics such as our own consumption now prefers, having regard, of course, to the fact that after all the bulk of our production is consumed at home. It seems to me that if we endeavor to aim at uniformity of quality, basing that quality upon the requirements of our overseas buyer, even if we have to educate our own consumers in that direction. It would be a difficult matter to try when to stop making goods to suit local tastes, and when to begin making that which suits the British taste; and if there is produced and thrown upon the export market a quantity of high-colored and high-salted butters, there would be important loss in the price obtained for such surplus, which would adversely affect the net result to the mass of the

producers with respect to their year production on the whole.

By following the policy of uniformity of production, the Canadian producer will obtain a slight but certain return to producers on the whole than any other. It will also produce for us a higher reputation in world markets than we have at present. This is the policy that has been strictly followed in New Zealand and in Denmark, with the result that the products of these countries bring higher average prices than do the products of any other country, except possibly France. Part of the product of Australia is just as fine as the average product of New Zealand, but the product of Australia shows greater variety of quality, and consequently does not have as high a reputation as New Zealand has, nor does it bring as high an average price.

The reputation of Canadian creamery butter in Great Britain is that of "irregularity." I hope, therefore, that it will be the policy of our producers of butter in this country to produce the article which will sell for the highest price obtainable in world markets, as well as in the home market. It will mean a further modification of taste on the part of Canadian consumers in certain parts of the country in the direction of milder salt and paler color. This can be accomplished, for assuredly the butter they will consume will be no less wholesome, and after a time it will be better liked. In fact, it has been the experience over the past 40 or 50 years in Great Britain that as the public taste has become accustomed to a milder salt and paler color, the improved foods, the consumers liked them better and used more of them.

The prairie provinces have made a good move in their butter grading and in place of their inspectors, through their certificates, at the disposal of buyers of creamery butter, thereby enabling buyers at a distance to purchase with confidence without personal inspection. This privilege to buyers might, I think, be extended somewhat further than it is so far as being in some, at least, of the provinces, so that a buyer might obtain a certificate of reinspection of goods which had been held for some time. It is reasonable that fees should be exacted for such services, but it is necessary that the inspector's position should be thoroughly independent. The more complete the confidence which can be established in methods of trading, the bigger the business and the better the prices paid.

It is necessary, however, if this practice is to be of nation-wide benefit, that the systems of inspection and the principles upon which the quality of butter is determined should be uniform, one province with another. It is desirable that a piece of butter which is classed as No. 1 in one province, should be in all essential characteristics the same as that which is classed as No. 1 in another province, no matter how distant. To obtain this result requires that the instructors and inspectors of all the provinces should be trained and educated along the same lines. In order that they may continue to uphold the principles that they have learnt in a uniform and effective way it is desirable that the inspectors of all the provinces should meet periodically to consider and discuss methods of manufacture and principles of valuing quality. These meetings would not only result in steady improvement in quality, but would maintain uniformity and the confidence of the commercial public, and of our customers in Great Britain in the various grades of Canadian butter that we may have to offer them.

Look on the bright side—and if there is no bright side—polish up the dark one.

Some Fiscal Prob- cultural C

(Continued from

An element of firm- the Grain Growers' est situation is the financial authorities due of the war to make an ion for meeting the which it must place agha life, and their co- less a radical change curing revenue is the den of the war cost crushing weight upon the land as to c- parallelled national c-

Today the govern- ing in a a- are clamoring to be- wants to do his bit. willing to make sacri- are abnormally large- War work has piled- portions profits unde- years ago. It is esti- \$100,000,000 of the- over seven per cent- ally over ample pro- dation and scrapping- been left in corpora- sult of two years' w- sion Finance, May 2- Growers believe we- ourselves days of h- fully in the future, a- constancies as these- at once while the w- more toward meetin- cost.

The national deb- the war was \$234,000- that three years it- night three times the- estimates show that- may reach \$2,200,000- of the present fiscal- has been paid on the- cost to date is a p- \$460,000,000 raised- "minus margin" of- the two preceding y- position in the matte- unfavorable contract- United Kingdom. G- sions for the year e- hat was \$2,276,137,900- \$1,183,303,790 for the-

Taxes on excess- profits 669,-
Taxes on income ge- and property 1,025,
Customs 374,
Excise 281,
(N.B.—From excess- cumulated wealth 60- was raised.)

Canada's total reve- year just ended w- raised as follows:
1. Customs \$136,
2. Excise 24,
3. Railway 20,
4. P. O. Tax 20,
5. Excess profits 18

In Canada, excise- ed 4.8% of the total- Accumulated w- netting

Canada's photo- gathering a rich har- war and solely invest- war funds, so that i- saving any part of t- that they shall be th- with the prestige an- which the possession- It is true that at last- war profits tax has b- to depend solely, w- wholly to solve th- problem, when there- profits to tax, and wh- will have to be imp- prices utterly unpop- when prices were a- will have to be paid- of produce gathere- may be abnormally- the worst possible r- adjust itself to the- principle of allowin-

* An address delivered at the recent Manitoba Dairymen's Convention.

Some Fiscal Problems of Agricultural Canada
(Continued from page 4.)

An element of first importance in the Grain Growers' view of the present situation is the failure of the national authorities during the course of the war to make any kind of provision for meeting the inevitable burden which must place upon our Canadian life, and their conviction that unless a radical change in modes of securing revenue is instituted the burden of the war cost will fall with crushing weight upon the producers on the land as to constitute an unparalleled national catastrophe.

Today the Government has special opportunity. In a sense our people are clamoring to be taxed. Every one wants to do his bit. The nation is willing to make sacrifices. Incomes are abnormally large. The prices of natural products are abnormally high. War work has piled up for many corporations profits undreamed of two years ago. It is estimated that over \$100,000,000 of excess profits (i.e., over seven per cent, and also, generally over ample provision for depreciation and scrapping of plant) have been left in corporate hands as a result of two years' war business. (Canadian Finance, May 2nd, 1917.) Grain Growers believe we are laying up for ourselves days of hardship and difficulty in the future, if with such circumstances as these we do not begin at once while the war is on to do more toward meeting the enormous cost.

The national debt of Canada before the war was \$236,000,000. In less than three years it has run to well-nigh three times that figure. Careful estimates show that it is possible it may reach \$1,200,000,000 by the end of the present fiscal year. All that has been paid on the principal of war cost to date is a paltry \$20,000,000 (\$60,000,000 raised last year, but "minus margin" of \$40,000,000 from the two preceding years.) Canada's position in the matter stands in most unfavorable contrast with that of the United Kingdom. Britain's total revenue for the year ending March 31st last was \$2,876,137,900—an increase of \$1,183,303,790 for the year.

Taxes on excess profits \$ 669,600,000 or 24.43%
Taxes on income and property 1,025,165,000 or 33.77%
Customs 374,805,000 or 12.21%
Excise 281,900,000 or 9.77%
(N.B.—From excess profits and accumulated wealth 69.25% of the total was raised.)

Canada's total revenue for the fiscal year just ended was \$229,217,270, raised as follows:

1. Customs \$130,351,155—56.33%
2. Excise 24,253,632—10.52%
3. Tariffs 22,918,897—10.00%
4. P. O. Tax 20,031,627—8.77%
5. Excess profits, 14,552,383—6.58%

In Canada, excess profits contributed 6.58% of the total.

Accumulated wealth contributed nothing.

Canada's producers have been gathering a rich harvest from the war, and safely investing it in untaxable war bonds, so that they shall escape paying any part of the price, and so that they shall be the moneyed class, with the prestige and the dominance which the possession of money gives. It is true that at least a fairly adequate war profits tax has been imposed—but to depend solely upon that is to fall wholly to solve the after-the-war problem, when there will be no war profits to tax, and when new taxation will have to be imposed amid conditions utterly unprepared to bear it. Prices will be lower—supplies bought when prices were abnormally high will have to be paid for by the sale of produce gathered when prices may be abnormally low. It will be the worst possible time for trade to adjust itself to the new burdens. The principle of allowing wealth to escape

taking its share of the burden, and later allowing the load to fall upon labor and production, is essentially vicious.

Grain Growers are convinced that if at the close of the war Canadian industry on the land and elsewhere is not to be crushed under the burden of war cost, crushed to utter desperation, the cost of the war must be undertaken and as far as possible provided for now. The cooperation of those receiving large incomes must be en-

listed. Accumulated wealth, in whatever form it is held, must be required to do its part. And the land values of the nation must be laid under tribute in this hour of the Empire's testing.

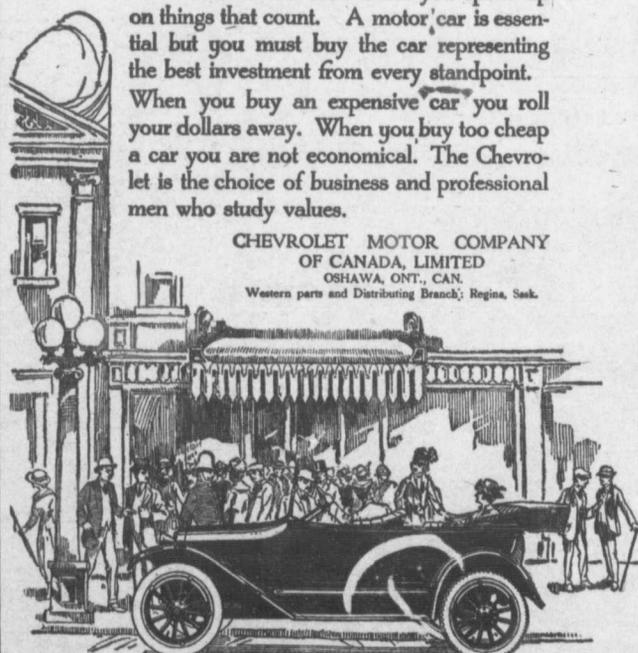
The common brown rat breeds six to 10 times a year and produces an average of 10 young at a litter. Four females bred when only three to four months old. At this rate, a pair of rats may in one year increase to 1,122,

and in two years to 629,442. From this it is plain that the rats must be exterminated. As long as a few are left they will in a very short time become very numerous.

An implement that is really needed is always a good investment. But first be sure you need it. The purchase of unnecessary implements has driven many a farmer into bankruptcy.



Economise
IN
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Buy a Chevrolet Four Ninety



WARTIME demands that you accomplish more in less time—that you speed up on things that count. A motor car is essential but you must buy the car representing the best investment from every standpoint. When you buy an expensive car you roll your dollars away. When you buy too cheap a car you are not economical. The Chevrolet is the choice of business and professional men who study values.

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There is a Chevrolet Show Room in your vicinity. Call and see the latest Chevrolet Models.

Formalin Will Prevent Smut in Grains

By H. E. Vasey.

THE formalin sprinkle method of seed treatment is very much in favor as a means of eliminating the stinking smut of wheat, closed smut of barley, oat smut, millet smut, and some other forms of smut. The main steps in the treatment are as follows:

1. Purchase the needed amount of 40 per cent. formalin and mix it with water at the rate of 1 pint to 40-45 gallons of water for wheat, barley, oats and millet smuts.
 2. Use a clean floor or wagon-bed, or canvas in the open, a few bushels of grain should be spread a few inches deep upon the floor and sprinkled with the above-mentioned formalin solution. If the grain is badly smutted otherwise dirty it should by all means be fanned before being treated.
 3. Sprinkle the solution over the grain with ordinary garden sprinkling can. Use about one gallon of solution to each bushel of grain. By all means use enough to thoroughly wet the kernels.
 4. Then the grain should be well shoveled. A thorough mixing while the solution is being applied will insure contact of the solution with the grain which is necessary to make the treatment entirely successful. One person can handle the sprinkler while another thoroughly mixes the grain.
 5. Shovel treated grain into a pile and cover with canvas or gunny sack that has previously been dipped into formalin solution. Leave covered about six hours, but not more than twelve hours.
 6. Spread grain out not more than two inches deep and allow to dry.
 7. If convenient, the grain should be put into clean sacks or stored in a clean bin so as to prevent spores from coming in contact with it. In no case should it be returned to the bin from which it was taken unless the bin has been cleaned with formalin solution. Sweeping in the granary before the treated grain has been removed should never be done, since large quantities of smut spores which settle on the floor and wall may find their way back again to the grain.
- By the use of this method two men can treat large quantities of seed in a short time and it is preferred for treatment of any considerable amount of grain.

Urge Flax Planting

IMMEDIATE action must be taken by farmers and municipalities in Ontario if several thousands of bushels of flax seed, which the British Government is unable to transport overseas at this time, is going to be utilized to the best advantage. Col. Walsden, of London, England, representing the British Admiralty, and Col. A. C. Pratt, M.P.P. of Norfolk, who is assisting him in this country, conferred with Commissioner of Agriculture Dr. G. C. Cressman and the Deputy Minister, W. Bert Roadhouse, last week, and asked the assistance of the Provincial Government.

The British Government purchased large quantities of this seed, which was grown in Siberia, and which was shipped to Canada by way of Japan. The intention was to ship it to Ireland and plant it there this year, so that the flax this fall could be used in meeting the big shortage of flax fibre. Large quantities are urgently needed for the manufacture of airplane wings.

\$4.50 a Bushel Assured.

Unlike, because of shortage of transport, to get all this seed to Ireland in time to plant this spring, the Admiralty is anxious to have the seed, which is in warehouse at Montreal, planted in Canada. Much of it is being shipped to the West to be planted, but there is still 5,000 bushels which must be planted in this province. The seed is of good fibrous quality. A guaranteed price of \$4.50 a bushel this fall for No. 1 flax is

assured those who plant this seed. In the fall the Admiralty will buy the seed and ship it to Ireland.

The Blotter Test Inefficient

EDITOR Farm and Dairy: Pardon a suggestion with reference to the article on "Seed Grain Tests" in your issue of April 4. The advice to farmers to test their seed before sowing is excellent, but the method of testing advocated is not good, and if it is generally used and its results trusted, there is no doubt that a great deal of good seed will be discarded.

In Seed Laboratory experiments we have tested out the plate-blotter method of germination described in your paper, and have found it very

unsatisfactory even here, where much more attention is given to the tests than would be practicable in the ordinary farm home. The chief difficulty is that the blotters very seldom have the proper amount of moisture.

By comparing all methods of home testing which have been recommended from time to time, we have found that by far the most satisfactory is to plant a counted number of seeds in moist soil in a can, box or dish of any kind. A check test should be put in wherever possible, some seed of known excellence being planted under the same conditions as the test. If the good seed germinates, one may assume that the test is fairly accurate.

In the laboratory many blotter tests are made, for this method means economy both in space and

labor. The blotters, however, are placed in especially constructed germinators, which keep them at suitable temperature, and automatically supply the proper moisture conditions.

It has been found that for many seeds blotters are unsuitable even under best conditions. Western oats and many of the grasses are included among these, and in spite of the increased space requirements, many hundreds of soil tests are made annually at the laboratories.

If home tests turn out unsatisfactory, or if it is not convenient to make them, one may have his seed tested free (up to twenty-five samples), by addressing it to the Seed Commissioner, Department of Agriculture, Ottawa.—H. B. Sifton, in charge of germination, Ottawa.



The Best of Effects



The Heart of the Milker

The Super-Simple Pulsator gets it



THIS IS THE WAY IT IS ACHIEVED!

Another Battle Won for Dairymen

FOR months we have been experimenting—investigating—testing—fighting, to find a way to make the Empire Milking Machine, already the unquestioned leader, still more efficient for the dairy farmer.

THE BATTLE IS WON.

We have given the milking machine a new heart—the pulsator is the heart of the milking machine—and the result of our experiment, the new Empire Super-Simple Pulsator, is the most wonderful development since the invention of the Empire—the competent milking machine.

To be successful a milking machine must have a perfectly acting pulsator to cause the alternating action of suction and massage on the teasts (to imitate the calf's "suck and squeeze") to occur with absolute regularity; and to make the change from suction to massage and back again instantaneous.

The Empire Super-Simple Pulsator, the pulsator without a piston, does that and more. It really is Super-Simple—so simple that it can be taken apart and put together again in less than two minutes. It has but five moving parts; nothing to wear out or "get out of gear." It cannot lose vacuum, so its action is perfect.



It places the Empire Milking Machine immeasurably in advance of all competition. Your cows should be milked by an Empire Milking Machine with the new Super-Simple Pulsator. It will milk them more rapidly than ever—it will solve your labor problem—it will increase milk production at a decreased cost; it will transform milking from drudgery into a pleasant chore.

Our factory is overtaxed by the increased demand for Empire Milking Machines, so go to your dealer at once, see the new Super-Simple Pulsator and tell him to order your Empire outfit without delay; or write for Catalog E

THE EMPIRE CREAM SEPARATOR CO. OF CANADA, LIMITED

MONTREAL 7 TORONTO

The British Columbia Farmers Parliament

A New United Farmers' Movement Off to a Good Start

THE United Farmers of British Columbia in their second annual convention, held recently in Victoria, laid foundations for a province-wide organization for a year old, the men in charge are taking hold like veterans, and the various districts are falling in line, about forty local associations having been organized during the past twelve months.

The first problem dealt with by the convention was the fixing of a membership fee. It was pointed out by H. J. R. Poole, the honorary secretary, and by the president, C. G. Palmer, that the membership fee of one dollar as established last year was inadequate. A number of the delegates were in favor of fixing a fee of at least five dollars, in order to put the association on a proper financial basis. As the membership of the association is still comparatively small, it was finally decided that the fee should be left at the present figure of one dollar, and that an extensive drive should be made at this low fee for a large membership of farmers. It was also decided that provincial organizers will not be employed, the convention being of the opinion that more effective work could be done by members or directors of the association.

Important Resolutions.

A considerable number of problems came up before the convention and were dealt with in a businesslike manner. The convention joined with the united farmers of other provinces in asking that the customs duty now imposed on imported agricultural machinery and implements be removed in the interests of greater production. They pointed out that the high prices now asked for agricultural machinery prevents the Canadian farmer from purchasing the most efficient machinery, and since the conscription of men from the farms has brought about a shortage in the labor supply, it is necessary that the most up-to-date machinery be installed to take their place.

A resolution was passed urging the provincial government to prevent Orientals and aliens from acquiring control of the agricultural lands in the province, and a resolution asking for the introduction of Oriental labor under indenture was rejected by the Union. Messrs Palmer and Poole, both of whom lived in Australia, stated that basing their action on the result of their observations in Australia, that they could not vote for any resolution for the introduction of Chinese into this province.

Want District Representatives.

That British Columbia agriculture would be greatly benefited by having a system of district representatives, such as we have in Ontario, and some of the other provinces of Canada, was the statement made by H. H. Savage, of Duncan, in introducing a resolution asking that the government adopt a system such as is now in force in Ontario. In doing so Mr. Savage mentioned the fact that the Province of British Columbia draws about \$80,000 a year from the Dominion Government as a fund to aid in the extension of agriculture, this with the provincial estimates expands the total amount spent for the benefit of agriculture to about \$250,000 a year, which being divided among some 5,000 farmers, meant a total expense of about \$50 per capita. This, he thought, was entirely wrong; he wanted to see farmers on a more independent basis. In Ontario and the United States the district or county representative system has been adopted, a trained farmer representing the department and being the source of information to all the agriculturists in the district. Wherever it has been adopted, it has resulted in increased production. This is a much more practical use of the money than the present system. At present out of the Dominion grant of \$80,000, a large part of it is devoted

to the production of the Agricultural Journal; to financing egg laying contests and the field crop competitions; while \$20,000 is allocated to the education department to teach agriculture in the schools and encourage work among the children. The resolution was unanimously adopted.

Resolutions were also passed asking that the Provincial Government draft a Rural Credits Act for farmers; that the government take action to have all telephone companies in the province linked up in the one system; that the Food Controller be urged to fix a minimum rate for hogs; and a resolution that members making five consecutive annual payments of five dollars, be granted life membership.

Cooperative Company.

The year's report of the Cooperative Farmers of British Columbia, Limited, which is the commercial organization, showed a net profit after payment of all expenses, of \$2,368.84. The company has during the year marketed some 80 cars of fruit, and after allotting from the season's profits a sum of \$500 as reserve fund, the balance of profits from the sale sheets were divided among the members, bringing the total charge for handling the fruit down to 2 3/10 cents per box. The business of the company for the year is summed up in the auditor's report as follows: "Your total purchases amounted to the sum of \$78,921.21, and your sales to the sum of \$78,921.21, leaving material on hand to the value of \$117.54, which shows a gross profit of \$5,918.13 and a net profit of \$2,368.84 after deducting all running expenses. The whole year's business has been done at the low cost of four and seventeen-twentieths (4 17-20 %) per cent., which I venture to say is a great deal lower than any business of this kind has ever been handled in the Valley."

Membership in the Cooperative Farmers of British Columbia is \$10, which entitles the member to two fully paid up shares in the company.

U. F. of B. C. Elections.

The election of officers for the U.F. B.C. resulted as follows: President, Geo. Clark, Sidney; First Vice-President, J. L. Pridham, Kelowna; Second Vice-President, R. A. Copeland, Lumby; Third Vice-President, W. Paterson, Koksali; Secretary, Geo. Spencer, Targuoe; Directors: W. E. Smith Revelstoke; J. M. Humphreys Malakwa; J. I. Kearny Armstrong; R. Y. Hurford, Courtenay; J. W. Berry, Langley; F. Shelly, Parksville.

Mr. J. J. Morrison, the Secretary of the United Farmers of Ontario, recently spent a few days in New Ontario. He reports a sports club formed at New Lakehead with Prof. John Sharp, formerly of Queen's University but now farming, as president. C. T. O. Hall, formerly of the Kent County Cooperative Society, is secretary. Mr. Morrison found a good live club at Heslip, but reports that the club at Harton is not progressing as it should.

A branch of the United Farmers of Ontario was organized at Aurora on March 8. Mr. J. Spalding, reeve of Whitechurch, was elected president, and J. A. Hill, secretary. The initial membership numbers 50. The speakers of the meeting were: President E. H. Bert of the U.F.O.; Mr. Geo. Brodie, president of the Newmarket Farmers' Club, and Mr. C. W. Dane, secretary of the Vaudor Farmers' Club.

A branch of the United Farmers of Ontario was organized at Pelham Centre, Ont., on March 5th. Mr. J. J. Morrison was the speaker and organizer, and officers elected are as follows: President, H. Strinzinger; Vice-President, E. E. Morse; Secretary, Treasurer, A. O. Haist. A second meeting was held on March 12th, and 26 members were enrolled in the new club.



IF COWS COULD TALK'

"Good morning, Mrs. Fawncat. I hear that all the cows in the county are joining the 'Win-the-War' Club."

"Yes, Mrs. Starface, the Dominion Government authorities say we must increase the production of butter-fat, and we cows have all promised to do our 'bit.'"

"There's one thing I want to say right now," spoke up Mrs. Black. "The farmers have got to back us up in this movement. I'm with the rest of you, heart and soul, but what chance have I got?"

"Why, Mrs. Black, what's the matter? You have a fine, warm barn and plenty to eat and drink."

"Yes, I know; but what can I do as long as they use that old cream separator on the place? It never was any good, anyway, and now it wastes so much cream I'm just plain discouraged."

"Well, you're not so badly off as some cows, where they haven't a new cream separator at all."

"I don't know about that. There's a lot of cream separators in this county that are only 'cows'-not much better than none at all. I tell you, Mrs. Fawncat, with butter at present prices and our Allies bringing every one to save fat, it's almost a crime to waste butter-fat the way some of these farmers do."

"That's one thing I'm thankful for," said Mrs. Fawncat, "there's no cream wasting on this farm. We have a De Laval Cream Separator and everybody knows that the De Laval is the closest skimming machine."

"Well," said Mrs. Starface, "we never used a De Laval on our place until last fall and supposed one separator was about as good as another; but, honest, the De Laval is the first cream separator we've ever had that gave us cows a square deal."

P. S.

Of course your cows can't talk—but if they could you'd never have a moment's peace until you got a De Laval Cream Separator. Remember that a De Laval may be bought for cash, or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream separators and Ideal Green Feed Bins. Alpha Gas Engines, Alpha Churns and BUTTER-WORKERS. Catalogues of any of our lines mailed upon request. MONTREAL PETERBORO WINNIPEG VANCOUVER 50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

THE business survivors are the good advertisers. But good advertising is not chiefly the putting forth of strong advertisements. Advertising is worse than useless if the goods are not as strong as the advertising. Survival is founded on bedrock quality. Good advertising must rest on that. Test the advertising in Farm and Dairy by that severe standard, in actual purchases. We guarantee the integrity of every advertiser in this issue, and believe they will stand the test. Try them and see. When writing, say "I saw your advertisement in Farm and Dairy."

When Writing Mention Farm and Dairy



NO man can tell what becomes of his examples that roll away from him and go beyond his ken on their perilous mission.—Henry Ward Beecher.

The Heart of the Desert

(Continued from last week.)

AS soon as he could drag Rhoda from the ancient pots, John led the way to the top of the ruin. He was anxious to find if there were more than the one trail leading from the desert. To his great satisfaction he found that the mesa was unscalable except at the point that Rhoda had found as she staggered up from the desert.

"I'm going to guard that trail tonight," he said. "It's just possible, you know, that Kutie escaped from Porter, though I think if he had he would have been upon us long before this. I've been mighty careless. But my brain is so tired it seems to have been off duty. I could hold that bare single-handed from the upper terrace for a week."

"Just remember," said Rhoda quickly, "that I've asked you not to shoot to kill!"

Again the hard light gleamed in DeWitt's eyes.

"I shall have a few words with him first, then I shall shoot to kill. There is that between that Indian and me which a woman evidently can't understand. I just can't see why you take the stand you do!"

"John dear," cried Rhoda, "put yourself in his place. With all his race prejudice against you that he had, wouldn't you have done as he has?"

"Probably," answered DeWitt calmly. "I also would have expected what he is going to do."

A sudden sense of the bizarre nature of their conversation caused Rhoda to say comically:

"I never knew that you could have such bloody ideas, John!"

DeWitt was glad to turn the conversation.

"I am so only occasionally," he said. "For instance, instead of shooting the rabbit for supper, I'm going to try a figure-four trap."

They returned to their little camp on the upper terrace and Rhoda sat with wistful eyes fastened on the desert while John busied himself with the trap-making. He worked with the skill of his country boyhood and the trap was cleverly finished.

"It's evident that I'm not the leader of the expedition any more," said Rhoda, looking at the trap admiringly. John shook his head.

"I've lost my faith in myself as a hero. It's one thing to read of the desert and think how well you could have managed there, and another thing to be on the spot!"

The day passed slowly. As night drew on the two on the mesa to grow more and more anxious. There was little doubt but that they could live for a number of days at the old pueblo, yet it was evident that the ruin was far from any travelled trail and that chances of discovery were slight except by Kutie. On the other hand, they were absolutely unprepared for a walking trip across the desert.

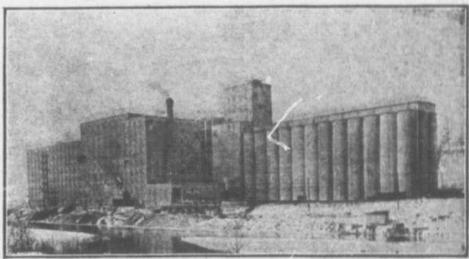
Troubled and uncertain what to do, they watched the wonder of the sunset. Deeper, richer, more divine grew

the colors of the desert, and in one supreme, flaming glory the sun sank from view.

DeWitt with his arm across Rhoda's shoulders spoke anxiously. "Don't you still think we'd better start to-morrow?"

"Yes," she answered, "I suppose so. What direction shall we take?"

"East," replied DeWitt. "We're bound to strike help if we can keep going long enough in one direction. We'll cook a good supply of rabbits and I'll fix up one of those bowl-like ollas with my handkerchief, so we can carry water in it as well as in the two canteens. I think you had better sleep in the little room that to-night



A Side View of the New Quaker Oats Plant.

Providing breakfast food for the Canada family to now a big industry, employing thousands of people and millions of dollars of capital. The largest plant of the kind in Canada, that of the Quaker Oats Company, Peterboro, Ont., is illustrated herewith. The old plant was destroyed over a year ago and the new buildings have been completed in the short space of a few months.

and I'll lie across the end of the trail here."

Rhoda sighed. "I've nothing better to suggest. As you say, it's all guesswork!"

They set the rabbit trap by the spring, then Rhoda, quite recovered from her nervousness of the night before, entered her little sleeping-room and made ready for the night. The front of the room had so crumbled away that she could see John's dark form by the trail, and she lay down with a sense of security and fell asleep at once.

John paced the terrace for a long hour after Rhoda was asleep, trying to plan every detail for the morrow. He dared not confess even to himself how utterly disheartened he felt in the face of this terrible adversary, the desert. Finally, realizing that he must have rest if Rhoda was not to repeat her previous experience in leading him across the desert he stretched himself on the ground across the head of the trail. He must trust to his nervousness to make him sleep lightly.

How long she had slept Rhoda did not know when she was awakened by a half-muffled oath from DeWitt. She jumped to her feet and ran out to the

terrace. Never while life remained to her was she to forget what she saw there. DeWitt and Kutie were wrestling in each other's grip! Rhoda stood horrified. At the two men twisted about, DeWitt saw the girl and panted:

"Don't stir, Rhoda! Don't call or you'll have his whole bunch up here!"

"Don't worry about that!" exclaimed Kutie. "You've been wanting to get hold of me. Now we'll fight it out bare-handed and the best man wins."

Rhoda looked wildly down the trail, then ran up to the two men.

"Stop!" she screamed. "Stop!" Then as she caught the look in the men's faces as they glared at each other she cried, "I hate you both, you beasts!"

Her screams carried far in the night air, for in a moment Cesca came putting up the trail. She jumped at DeWitt with catlike fury, but at a sharp word from Kutie she turned to Rhoda and stood guard beside the girl. Rhoda stood helplessly watching the battle as one watches the horrors of a nightmare.

Kutie and DeWitt now were fighting as two wolves fight. Both the men were trained wrestlers, but in their fury all their scientific training was forgotten, and rolling over and over on the rocky trail each fought for a hold on the other's throat. With Kutie was the advantage of perfect condition and superior strength. But DeWitt was fighting for his stolen meat. He was fighting like a cave

And then she saw DeWitt's face go white and his head drop back.

"Oh!" she screamed. "You've killed him! You've killed him!"

The Indian's voice came as dark as he eased DeWitt to the ground.

"He's just fainted. He's put up a tremendous fight for a man in his condition!"

As he spoke he was tying DeWitt's hands and ankles with his own and DeWitt's handkerchiefs. Rhoda would have run to DeWitt's aid but Cesca's hand was tight on her arm. Before the girl could move again, Kutie had turned to her and had lifted her in his arms. She fought him wildly.

"I can't leave him so, Kutie! You will kill all I've learned to feel for you if you leave him so!"

"He'll be all right!" panted Kutie, running down the trail. "I've got Billy Porter down here to leave with him!"

At the foot of the trail were horses, gagged and bound to his saddle Billy Porter sat in the moonlight with Molly on guard. Kutie put Rhoda on her feet and quickly thrust Porter to the ground, where the man sat helplessly.

"Oh, Billy!" cried Rhoda. "Help him on the terrace! Find him! John is on the terrace!"

The last words were spoken as Kutie turned her horse and led a trot into the desert.

CHAPTER XX.

The Ruined Mission.

Rhoda was so confused that for a moment she only could ease herself on the pony's swift canter and wonder if her encounter with DeWitt had been but a dream after all. A short distance from the pueblo Kutie rode in beside her. It was very dark, with the heavy blackness that Jus precedes the dawn, but Rhoda felt that the Indian was looking at her exultingly.

"It seemed as if I never would get Alice and Injun Tom moved to a friend's camp, so I could overtake you. I will say that that fellow Porter is game to the finish. It took me an hour to subdue him! Now, don't worry about the two of them. With a little work they can loose themselves and help each other to safety. I saw Newman's trail ten miles or so over beyond the pueblo mesa, and I told Porter just how to go to Alice him-up."

Rhoda laughed hysterically. "No wonder you have such a hold on your Indians! You seem never to fail! I do believe as much of it is luck as argument!"

Kutie chuckled. "What a Jolt DeWitt will find when he comes to, and finds Porter!"

"You needn't gloat over the situation. I've had my good luck, but sobbing in her conflict of emotions.

"Oh, you mustn't mind anything I say," returned the young Indian. "I am crazy; with joy at just hearing your voice, I've really got to be with me again? Did DeWitt mean as much to you as ever? Tell me, Rhoda! Say just one kindly thing to me!"

"O Kutie," cried Rhoda. "I can't! I can't! You must help me to be strong! You—who're the strongest person that I know! Can't you put yourself in my place and realize what a good position I am in?"

Kutie answered slowly. "I guess I can realize it. But the end is so great, so much worth while that nothing before that matters much to me. Rhoda, I've really sorry to see the lift of the horse under your knees—the air rushing past your face—the weave and twist of the trail—don't they speak to you and doesn't your heart ache?"

"Yes," answered Rhoda simply.

The young Indian rode still closer. Dawn was lifting now, and with a gasp Rhoda saw what she had been too agonized to heed on the terrace

(Continued on page 22.)

The Up

Rest to

COME into you rest
you, and
will end rest to
xi 25, 29.

Rest for the first promise
sought to win
Simple though it
is indeed as large
as can be found.

does it not imply
every fear, the
the fulfillment of
no nothing less
prize with which
back the wand
mourning that
so abiding or so
—to come back
Nothing but this
the rest has either
if found, has be-
again; you did
did not abide in
I have you really
original invitation
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Saviour says "Co-
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perence and enjoy
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you have really
very own,—the de-
rest which comes
quaintance and clo-
entire surrender-
pably.

Do not these words
discover what you
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tened. It must
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der to Jesus is the
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it, taking up His
to be led and taught
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It is because so
Never fails to lay
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lag in Jesus, was

The Upward Look

Rest to Your Souls

"COME unto me, and I will give you rest. Take my yoke upon you, and learn of me; and ye shall find rest to your souls."—Matt. xi, 29.

Rest for the soul: Such was the promise with which the Saviour sought to win the weary-laden ear. Simple though it appears, the promise is indeed as large and comprehensive as can be found. Rest for the soul,—does it not imply deliverance from every fear, the supply of every want, the fulfilment of every desire? And now nothing less than this is the price with which the Saviour would exact the wandering one—who is mourning that the rest has not been so abiding or so full as it had hoped—to come back and abide in Him. Nothing but this was the reason that the rest has either not been found, or, if found, has been disturbed or lost again: you did not abide with, you did not abide in Him.

Have you ever noticed how, in the original invitation to the Saviour, to come to Him, the promise of rest was repeated twice, with such a variation in the conditions as might have suggested that abiding rest could only be found in abiding in Him. First the Saviour says "Come unto me, and I will give you rest;" the very moment you come, and believe, I will give you rest,—the rest of pardon and acceptance,—the rest in My love. But we know that all God bestows needs time to become fully our own; it must be held fast, and appropriated, and assimilated into our innermost being; with-stand this not even Christ's giving can make it our very own, in full experience and enjoyment. The rest He gave at coming will become something you have really found and made your very own,—the deeper abiding rest which comes from longer acquaintance and closer fellowship, from entire surrender and deeper sympathy.

Do not these words of the Saviour discover what you have perhaps often sought in vain to know, how it is that the rest you at times enjoy is so often lost. It must have been this: you had not understood how entire surrender to Jesus is the secret of perfect rest. Giving up one's whole life to Him, for Him alone to rule and order it; taking up His yoke, and submitting to be led and taught, to learn of Him; abiding in Him, to be and do only what He wills; these are the conditions of discipleship without which there can be no thought of maintaining the rest that was bestowed on the first coming to Christ. The rest is in Christ, and not something He gives apart from Himself, and so it is only in having Him that the rest can really be kept and enjoyed.

It is because so many a young believer fails to lay hold of this truth that the rest so speedily passes away. Will some it is that they really do not know; they were never taught how Jesus claims the undivided allegiance of the whole heart and life; how there is not a spot in the whole of life over which He does not wish to reign; how in the very least things His disciples must only seek to please Him. They did not know how entire the consecration was that Jesus claimed. With others, who had some idea of what a very holy life—a Christian ought to lead, the mistake was a different one: they could not believe such a life to be a possible attainment. Taking up the yoke, and never for a moment laying aside the yoke of Jesus, appeared to them to require such a strain of effort, and such an amount of goodness, as to be altogether beyond their reach. The very idea of always, all the day, abiding in Jesus, was too high,—some-

thing they might attain to after a life of holiness and growth, but certainly not what a feeble beginner was to start with. "This did not know how," when Jesus said, "My yoke is easy." He spoke the truth; how just the yoke gives the rest, because the moment the soul yields itself to obey, the Lord Himself gives the strength and joy to do it. They did not notice how, when He said, "Learn of me," He added, "I am meek and lowly in heart," to assure them that His gentleness would meet their every need, and bear them as a mother bears her feeble child. Oh, they did not know that when He said, "Abide in me." He offered the surrender to Himself, His almighty love would hold them fast, and keep and bleed them. And so as some had erred from the want of full consecration, so these failed because they did not fully trust. These two, consecration and faith, are the essential elements of the Christian life,—the giving up all to Jesus, the receiving all from Jesus. They are implied in the one word—surrender. A full surrender is to obey as well as to trust, to trust as well as to obey.

But, alas! I fear some one say, it is just this abiding in Him, which is bearing His yoke, to learn of Him, that is so difficult, and the very effort to attain to this often disturbs the rest even more than sin or the world. What a mistake to speak sins, and yet how often the words are heard! "The soul has but to yield itself." Him, to be still and rest in the confidence that His love cannot believe that Christ, the Almighty One, will in very good teach and keep us all the day. And yet this is just what He has promised,—the abiding rest cannot really give us rest.

It is not the yoke, but resistance to the yoke, that makes the difficulty; the whole-hearted surrender to Jesus, as at once our Master and our Keeper, finds and secures the rest.

Come, my brother, my sister, and let us this very day commence to accept the word of Jesus in all simplicity. It is a distinct command this: "Take my yoke, and learn of me." "Abide in Me." A command has to be obeyed. The obedient scholar asks no questions about possibilities or results; he accepts every order in the confidence that his teacher has provided for all that is needed. Let us this day in immediate obedience accept the command, and answer boldly, "Saviour, I abide in Thee." At Thy bidding I take the yoke; I undertake the duty with-out delay; I abide in Thee." Let each consciousness of failure only give new urgency to the command, and teach us to learn more earnestly than ever till the Spirit within us hears the voice of Jesus saying, with a love and authority that inspire both hope and obedience, "Child, abide in Me." Thy word, listened to as coming from Himself, will be at end of all doubting,—a Divine promise of what shall surely be granted. And with ever-increasing simplicity its meaning will be interpreted. Abiding in Jesus is nothing but the finding of oneself to be ruled and taught and led, and so resting in the arms of Everlasting Love. With this grace secured, we have strength for every duty, courage for every struggle, blessing in every cross, and the joy of life eternal in death itself.

Note.—As stated in our issue of last week, we purpose running a number of selections in the Upward Look from Rev. Andrew Murray's book, "Abide in Christ." The above is the second of the series.

Habits in youth may be controlled and directed, in fact, in the man become the confirmed condition of life.

Bird Protection is Food Pro-

tection

FEW people are aware of the amazing number of insect species that they out-number by far the total of the species of all other living creatures. Along with the astonishing variety of insect life is its astonishing food capacity most of the species possess for reproduction. For instance, the Dominion Entomologist has computed that the single pair of potato bugs would, if unchecked, increase to 60,000,000 individuals in one season. Besides the overwhelming variety and fecundity of insects, is their voracity, all eating enormous quantities. Do we ever stop to consider who or what it is that prevents these hordes from overwhelming the earth and consuming the food supply of mankind? By ceaseless exertion, consisting of spraying, etc., we can save our gardens and orchards from being destroyed by these insects, but we cannot spray the forests and fields. On what do we depend in this case? It is the bird and this by reason of its predominating insect diet. Birds are the primary and the main check on the increase of destructive insects and this is their mission in organic nature—a place no other agency or species can fill.

Canada should welcome every insectivorous bird returning to us each spring as a priceless asset. All through the winter the creepers, the nuthatches and woodpeckers have been quietly performing the colossal labor assigned by nature and have cleaned up the trunks of trees by eating countless insect eggs and larvae, while the chickadees, kinglets, finches, redpolls and others have searched every limb and twig and withered leaf for dormant insect life. The wood-seed eating birds, the grosbeaks and snowflakes, have come down from the untrodden forests of Hudson Bay and Labrador, following the diminishing heads of the weeds in the drifting snow. These species return in the spring to the north, and there arrives an army of warblers from the south lands, the tiny saviors of the forests, who, with the we kinglets and tireless chickadees, search the leaves and blossoms for insect pests. The scrub-shrikes will swallow the robins and meadowlarks, the fly-catchers, the martins and swallows, the wood-seed eating sparrows and finches, the cuckoos, who eat at the larvae of the caterpillars, the orioles, and many more—in a tide of beauty and song, to bewitch our eyes and ears, while they perform for us an incalculable service.

Lying in wait for these deliverers of ours are the small boys with slings and air guns who do not realize the value of these birds and also the useless house cats. At this serious crisis in the world's food supply, every effort must be put forth to protect insectivorous species of birds. People should be informed of their priceless value to the country. The relations of birds to insect life merit the utmost thought, study and intelligent consideration of governments and all who are responsible for the welfare of the country.

During the next few weeks we purpose publishing short articles in these columns on the value of birds to agriculture which we believe will prove of interest and value to Our Folks. Watch for them.

In China when the subscriber rings up Exchange the operator may be expected to ask—

"What number does the honorable son of the moon stars desire?"

"Hohl, two-three."
Silence, then the Exchange resumes, "Will the honorable person graciously forgive the inadequacy of the insignificant service, and pardon this humbled slave of the wire to inform him that the never-to-be-sufficiently censured line is busy?"

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He is a good farmer—he reads Farm and Dairy regularly.



Turn to the Right!

THE Insurance Times of New York is one of the best authorities in the world on the subject of Life Insurance. In its issue of February, 1918, in commenting upon the fact that another of the large American Companies had adopted the mutual principle, the following words are used:—

"The Mutual idea is unquestionably the highest ideal in Life Insurance service. Co-operation, collective bargaining and distribution are the order of the twentieth century. All Life Insurance must ultimately come to be written as well as conceived on a purely mutual basis. Genuine mutualization—mutual in fact as well as in theory—will be called for in the coming years, and the company that does not limit its mutual program to its principles, but makes its practice and its policies concretely mutual, is the company that will be in accord with the spirit of the coming generation, which before all else will be social-minded and democratic. Mutualization is the aim-board. 'Turn to the Right,' and it is the road that all life insurance will eventually take."

The Six Largest Companies of the United States are Mutual Companies.

The Mutual Life of Canada is the only Canadian representative of this ideal system that has ever been developed during the whole history of the Dominion. You "Turn to the Right" when you turn to the Mutual Life Assurance Company of Canada for protection.

The Mutual Life Assurance Company of Canada Waterloo, Ontario

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Advertising is something more than the selling of goods and buying of good will. It is something higher than "scientific distribution" or business science. It is a great agent of progress, in its broadest aspect, advertising is and always has been a powerful instrument of civilization. You will find our advertisers worthy of every confidence. When writing say—"I saw it in FARM AND DAIRY."

WOULD YOUR MOTHER Like This Set of Silverware?

We know that she would and therefore we are giving our Boy and Girl Readers an opportunity of securing it.

All you have to do to get one of these fine chests of Silver is to send in to us Only Ten New Year Subscriptions to Farm and Dairy.

The chest contains 26 pieces of silver—six solid handled knives, six flat handled forks, six tea spoons, six dessert spoons, a butter knife and a sugar shell.

Go out this week and secure the Ten new subscriptions. It will not take you long to get these. Call at your neighbors on your way home from school, and on Saturday make it a big day by securing the remainder. Send them along to us and we will immediately on receipt of same, have the silver sent forward to you in a fine hardwood chest fitted with drawers and handles.

Circulation Department Farm & Dairy Peterboro, Ont.



Young People's Forum

Arbor Day in the Schools

"HE who plants a Tree, Plants a Hope." An Arbor Day was designed to draw the attention of the people to the great waste of timber in our country, and to propose a remedy, by the replanting of trees.

A dignified, serious recognition of this day in our schools would be of great service in reminding both children and adults of the need of fostering our supply of trees. We have been so rich in our forests, we are only beginning to awaken to the fact that the timber will not last for ever, unless proper care is taken.

Getting Ready for Arbor Day. In preparing for an Arbor Day celebration, aim to employ the entire school, or as much of it as possible. Appoint a committee to secure any flowers or decorations. Give out topics for compositions and let the best ones be read aloud at the exercises. Choose several appropriate recitations and quotations. Select certain boys to take part at the tree-planting. Have the pupils labor and welcome the visitors. If at all possible, have music; secure a corner for the out door exercises. Make it in fact a gala day for the pupils, a festival of spring pervaded by the love of Nature.

Selecting a Site.

A committee of older ones could take charge of the selection of a site. The school grounds, unshaded roads, church yards and public squares are all excellent fields for Arbor Day plantings. Let the programme be short and snappy, but have a definite place for the planting. The idea of naming or dedicating has been carried out in many communities. Trees have been planted in memory of some of our dear boys who have fallen in this great fight.

The programme should be arranged so that should the day prove stormy, it can be given indoors. When trees can not be planted, vines may be set out or seeds be started in window boxes.

Suggested Programme for Arbor Day. Devotional exercises. Song by the pupils: "The Land of the Maple." Reading: Reasons for Establishing Arbor Day.

Song: "Spring is Here." Address: Subject, "How to Beautify our School grounds and homes." Short Essays by Pupils: "My Favorite Tree."

Organization of a Planting Association for the purpose of seeing that the trees are watered and cared for. Closing song: "The Maple Leaf." Pupils now march to the trees. Planting the tree. Let as many as practicable throw a spadeful of earth around the tree.

Song to be sung after the tree is planted, to the tune of "God Save Our King":

"How softly breezes blow;
Gone now the ice and snow,
Spring time has come;
Spring time has come;
Swallows fly here and there,
Bird music fills the air,
And round the flowers fair
Gay insects hum.

"O, in this wakening time
Earth, free from snow and rime,
Has its new birth;
And hear the plants all say:
Dear friends, plant us, we pray,
Plant us on Arbor Day,
In this brown earth."

Naming the Tree.

This exercise may be used when the name of some great man is chosen. Suppose the name of Tennyson be chosen, if time permits extend

the exercise into a study of his life and works.

Teacher: "For what famous English poet shall we name our tree?"
Pupil: "Alfred Tennyson."

Teacher: "Tell me in a few words about his life?"

Pupil: "Alfred Tennyson was born in Lincolnshire, England, August 6th, 1809. He won a prize at Cambridge for his poem, 'Timbuctoo.' For nine years after that he wrote very little, but studied his long poems, 'In Memoriam' and 'The Idyls of the Kings,' made him famous. He was one of the most beloved of our poet laureates. In 1850 Tennyson died, three years after he wrote the prophetic poem, 'Crossing the Bar.'"

Teacher: "How did Tennyson write of his longing for spring?"

Pupil:
"Dip down upon the northern shore,
O sweet new-year, delaying long;
'Thou dost disappoint nature wrong;
Delaying long, delay no more.

"What stays thee from the clouded noon,
Thy sweetness from its proper place,
Can trouble live with April days
Or adhere in the summer moon?"

(Note.—There are several other verses in "In Memoriam" which follow. These and other quotations may be added.)

Teacher: "We dedicate this tree to Tennyson to-day, and hope it will flourish like his works."
After the tree is planted sing the verses given in the first programme.

Housecleaning Suggestions Requested

HOUSECLEANING time is almost here. It is true that a great deal of work is always connected with this annual "clean-up," but if we have been able to work out some system, dedicating in some way reduced the amount of labor and helped to eliminate confusion, we have gone a long way toward simplifying housecleaning problems.

Many of our readers, no doubt, have ideas of their own regarding practical methods to follow when housecleaning. Perhaps you have worked out some scheme whereby the routine work goes along fairly regularly and the family is not greatly inconvenienced and you are not worn out with the hard work. Perhaps you have discovered some method of cleaning the walls, carpets, curtains, windows, etc., which you consider worthy of passing on. Perhaps also you follow a good method of storing winter clothing, blankets, etc., so that you know exactly where to locate them next fall and also know where they should be made to the fall and winter wardrobe. Will you not pass your ideas along to other farm women who are open for suggestions. We will be pleased indeed to receive contributions from any of Our Women Folk who have helpful suggestions to offer.

Boys and Girls Can Help

M. R. W. J. BLACK, Commissioner of Agricultural Instruction, points out that boys and girls can help to increase the production of food in Canada this year. He says: "Every farm boy and girl should be encouraged to rear a pig, a calf, a batch of chickens, or to grow a plot of potatoes, beans, corn or vegetables. This is now the third year that the boys' and girls' clubs and groups of school age last year increased the agricultural output of Ontario to the value of \$125,000. Other provinces did equally well. From this it will be seen the boys' and girls' clubs and competitions, the principal channel through which this work is carried on, made in 1917 an addition to our food resources that was not to be despised."

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Dairy Products in the Home

WHILE milk is one of the foods in the farm home which is most easily available, how many of us really appreciate the value of this product as a food? A close study of milk as a food is always to the point, but more especially is this the case now during these days of necessary conservation. At the recent annual convention of the dairymen of the province of Alberta, Prof. R. M. Washburn, of the University of Minnesota, gave an address on "Dairy Products in the Home," containing information which all of us would do well to study. Herewith we give some of the facts as presented by Prof. Washburn:

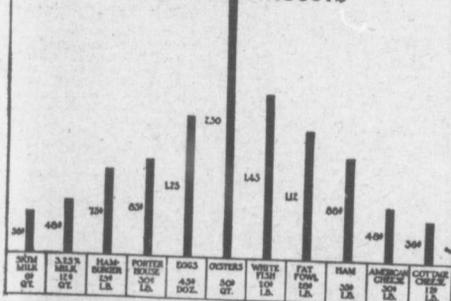
Meat and milk stand out among the foods of men unique, milk as the indispensable diet of the very young and highly desirable in the diet of the older growing children and meat as the recognized strength giver for adults. Meat and milk are uniquely similar in their chemical nature, each being very digestible and easily digested, each containing fat and each containing lean. Each likewise is stimulating, meat to muscle activity, milk to growth.

Milk is a complete food. It contains ash for bone building, casein

is milk a cheap food? Water is not food, neither is bone nor shell. Only the digestible substance counts. The cost of one pound of actual nutriment varies in all of our common foods very much according to the amount of waste they carry. For example, meats as purchased are from one-tenth to one-fourth bone and the meat itself is from one-half to two-thirds water. Even so solid a meat as ham is about one-seventh bone and the meat portion one-half water. MILK has no bone but is 87½ per cent. water, and 12½ per cent. solid, or one-eighth pound of solid food matter per pound, but one quart weighs two pounds and therefore contains one-fourth pound actual food substance. So if it costs 12 cts. per American quart, the food solids cost at the rate of 48 cts. per pound. In skim milk at six cents per quart, the food solids cost about 36 cts. per pound.

The diagram which appears herewith gives a more vivid picturing of the comparative cost of our common food stuffs. This table is drawn to scale and from it may be seen that milk produced at or standardized to three and one-quarter per cent. fat and sold at 12c per quart, though costing at the rate of 48c per pound actual food, is yet less expensive than

COST OF 1 LB. OF ACTUAL FOOD IN ANIMAL PRODUCTS



and albumin (proteins) for muscle construction, sugar for heat to warm the body and energy to allow it to continue motion and fat which does the same work as sugar, except to a greater degree. Fat furnishes two and one-quarter times as much heat as sugar. Thus, we should be expected of a food designed by nature to serve as a sole food for growing young for several very important months, milk contains everything needed for good growth with the possible theoretical exception of iron.

Milk is handicapped in its general appreciation by—

1. Being a liquid. Thus it is considered merely a drink, whereas in fact, it contains from two to four times as much actual solid food per weight as most garden vegetables; and,
2. By being sold in units (quarts) which are more than twice as great as those of its natural competitor, meat. One quart of milk weighs 2.12 pounds; and
3. In being so good a food for bacteria as well as for people that it spoils quickly, therefore requiring more intelligent care than is demanded by most other foods. Since antiquity, however, milk has been used and is now becoming more and more appreciated as we study more clearly into the needs of the human machine and the sources of the materials required.

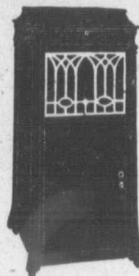
the other comparable food substances.

Growing the Boston Fern Successfully

ONE of the prettiest ferns for the home is the Boston fern, although some people find it rather difficult to grow successfully. Here are a few pointers which may be of value to some housewife who is having trouble with her ferns:

The best time to repot ferns is in early spring, March or April, before the plant starts to make new growth. When repotting, it is usually advisable to use a pot one or two sizes larger. If there are a great many roots, one may be tempted to divide the fern, but this is rather risky and it is better to take off any small plants that are usually found growing around the old plant and pot them into small pots.

Plant food is good for Boston ferns, but it is not necessary to give plant food if proper soil is used when repotting. The ideal soil is one part sand, one part leaf soil (black soil from the bush), four or five parts of loamy soil and one part of dry pulverized cow or sheep manure or bone meal. Put nearly an inch in depth of broken flower pot, coal clinders, coarse gravel or lump charcoal in the bottom of the pot for drainage. Ferns like good drainage, moist atmosphere and shade if it's a hot sun.



The NEW EDISON

"The Phonograph with a Soul"

THIS is the official laboratory model which has been tested before over a million people in direct comparison with its Re-Creation of the voices of Anna Case, Marie Sundelius, Zenatello, Ciccolini, Middleton, Chalmers and other great artists.

The result is chronicled in hundreds of the leading newspapers—that

"The New Edison Re-Creates all forms of music with such literal exactness that the Re-Creation cannot be distinguished from the original, although original and Re-Creation are heard in direct comparison."

THE EDISON IDEALS

It has been the ambition of the Edison organization to incorporate their ideals of surpassing design, material and execution into every product that goes forth from the Edison laboratories. In the official laboratory model shown above, the spirit of Edison dominance is revealed in every line.

May we send you the brochure "Music's Re-Creation" and the booklet, "What the Critics Say."

THOS. A. EDISON, Inc., ORANGE, N. J.

147

A LASTING SURFACE -



—a Varnish that will stand wear and tear. Ramsay's Fine Floor Varnish maintains a perfect lasting finish under most extreme circumstances. The scraping of furniture and the stamp of heels is its daily test for durability.

The fact that Ramsay's Varnish stands this severe usage, proves its worth as a preservative for your floors.

Ask any Ramsay dealer, or write us for our descriptive literature.

The Right Varnish to Varnish Right

RAMSAY'S VARNISHES

A. RAMSAY & SON COMPANY
MAKERS OF FINE VARNISHES AND PAINTS SINCE 1840
Toronto Montreal Vancouver

FOR SALE BY ALL DEALERS

RENNIE'S

War Time Production Seeds

THE farmer will be well advised who makes certain of a good crop of potatoes. In selecting your seed potatoes, get Rennie's—the best. We have secured a supply of good seed potatoes absolutely free from disease; but the supply is limited and we advise you to send your order right away.

Seed Potatoes

Earliest Six Weeks—The Ohio type; very similar to potato now grown in the Northwest. Very prolific, and a first-class market sort. Bus. \$1.50; bag (90 lbs.), prepaid, \$4.25.

Improved Early Ohio—The earliest heavy yielding potato in the market today. It is the standard early potato. Bus. \$2.50; bag (90 lbs.), prepaid, \$4.90.

Irish Cobbler—Chunky, white-skinned early potato of splendid quality. Ripens one week later than Improved Ohio. A splendid yielder, especially suited to dry climates. Bus. \$1.50; bag (90 lbs.), prepaid, \$4.25.

Extra Early Bureks—An extra early variety producing fine large tubers, of a shortened oblong form, thick through and with few eyes. The flesh is firm and of good flavor. Bus. \$2.50; bag (90 lbs.), prepaid, \$4.50.

Green Mountain—Its cropping qualities are phenomenal, and we believe it to be one of the heaviest yielding potatoes grown. Its productivity is largely attributable to the uniform size of the potatoes, but its crowning merit is its superb cooking quality. Bus. \$2.50; bag (90 lbs.), prepaid, \$4.50.

Gold Coin—The eyes are small and there is but little waste in paring. The flesh is fine-grained, and cooks to a dry, fluffy whiteness. Bus. \$2.50; bag (90 lbs.), prepaid, \$4.50.

Study Your Catalogue

Our 1918 catalogue contains information that no farmer should be without. Watch especially the paragraphs enclosed in the star borders containing special values that cannot be beaten.

When buying from dealers insist on Rennie's Seeds.

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

Business is Brisk

We are rushed with orders of all sizes, for stock and poultry feeds and especially Hog Feeds. The people of Canada are evidently trying to supply the needed bacon and other pork products, and from past results they know that the quickest and cheapest way to produce pork is by feeding

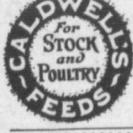
CALDWELL'S Molasses or Dry Hog Feed

Little wonder our capacity is taxed to the limit. We are going to fill our orders promptly, however, and help you produce. Our Molasses Hog Feed has the following analysis: Protein 11%, Fat 3%, Fibre 5%. Dry Hog Feed, which contains 14% tankage, is 19% Protein, 2½% Fat and 9% Fibre.

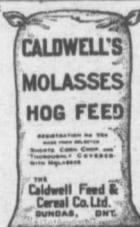
Order a quantity of each feed from your feedman at once, or we will supply you direct.

The Caldwell Feed & Cereal Co., Ltd.
 Dundas, Ontario

Makers also of Molasses Horse Feed, Dairy Meal, Calf Meal, and Poultry Feeds of all kinds.



A pessimist is a business man who never felt the inspiring influence of good advertising.



The Heart of the Desert

(Continued from page 13.)

in the moonlight. Kutie was clothed again! He wore the buckskin suit, the high-laced riding boots of the ranch days; and he wore them with the grace, the debonair ease that had so charmed Rhoda in young Cartwell. That little sense of his difference that his Indian nakedness had kept in Rhoda's subconsciousness disappeared. She stared at his broad, graceful shoulders, at the fine outline of his head which still was bare, and she knew that her decision was going to be indescribably difficult to keep. Kutie watched the wistful gray eyes tenderly, as if he realized the depth of anguish behind their wistfulness; yet he watched none the less resolutely, as if he had no qualms over the outcome of his plans. And Rhoda, returning his gaze, caught the depth and splendor of his eyes. And that wordless joy of life whose thrill had touched her the first time that she had met young Cartwell rushed through her veins once more. He was the youth, the splendor, the vivid wholeness of the desert! He was the heart itself, of the desert.

Kutie laid his hand on hers. "Rhoda," softly, "do you remember the moment before Porter interrupted us? Ah, dear one, you will have to prove a match to erase the truth of that moment from our hearts! How much longer must I wait for you, Rhoda?"

Rhoda did not speak, but as she returned the young man's gaze there came her rare slow smile of unpeakable beauty and tenderness. Kutie trembled; but before he could speak Rhoda seemed to see between his face and hers, DeWitt, haggard and exhausted, expending the last remnant of his strength in his fight for her. She put her hands before her face with a little sob.

Kutie watched her in silence for a moment, then he said in his low rich voice:

"Neither DeWitt nor I want you to suffer over your decision. And DeWitt doesn't want just the shell of you; I have the real you! O Rhoda, the real you will belong to me if you are seven times DeWitt's wife! Can't you realize that forever and ever you are mine, no matter how you fight or what you do?"

But Rhoda scarcely heard him. She was with DeWitt, struggling across the marching sands.

"O Kutie! Kutie! What shall I do! What shall I do!"

Kutie started to answer, then changed his mind. "You poor, tired little girl," he said. "You have had a fierce time there in the desert, you! You look exhausted. What did you have to eat and how did you make out crossing to the mesa? By your trail you went miles out of your way."

Rhoda struggled to calm. "We nearly died the first day," she said. "But we did very well after we reached the mesa."

Kutie smiled to himself. It was hard even for him to realize that this plucky girl who passed so simply over such an ordeal as he knew she must have endured could be the Rhoda of the ranch. But he said only:

"We'll make for the timber line and let you rest for a while."

At mid-morning they left the desert and began to climb a rough mountain slope. At the pinnac line, Kutie called a halt. Never before had shade seemed so good to Rhoda as it did now. She lay on the pine-needles looking up into the soft green. It was unpeakably grateful to her eyes which had been so long tortured by the desert glare. She lay thus for a long time, her mental pain for a while lost in the access of physical comfort. Shortly Molly, who had been working rapidly, brought her a

steaming bowl of stew. Rhoda ate this, then with her head pillowed on her arm she fell asleep.

She was wakened by Molly's touch on her arm. It was late afternoon, Rhoda looked up into the squaw's face and drew a quick hard breath as realization came to her.

"Molly! Molly!" she cried. "I'm in terrible, terrible trouble, Molly!" The squaw looked worried.

"You are so awfully Kutie help sorry while you go!"

But Rhoda scarcely heeded the woman's voice. She rolled over with her hot face in the fragrant needles and groaned.

"O Molly! Molly! I'm in terrible trouble!"

"What trouble? You tell old Molly!"

Rhoda sat up and stared into the deep brown eyes. Just as Kutie had become to her the splendor of the desert, so had Molly become the brooding wisdom of the desert. With sudden inspiration she grasped the Indian woman's toll-scarred hands.

"Listen, Molly! Before I knew Kutie, I was going to marry the white man, DeWitt. And now he stole me away from Kutie and I hated the desert. And now, O Molly, I love both Kutie and the desert, and I must marry the white man!"

"Why? You tell Molly why?"

"Because he is white, Molly, like me. Because he loves me so and has done so much for me! But most of all because he is white!"

Molly scowled. "Because Kutie is Injun, you no marry him?"

Rhoda nodded miserably.

"Huh! And you think you so big, Kutie so big that Great Spirit care if you marry white, marry Injun. All Great Spirit care is for every squaw to have papoose. Squaw, she big fool to listen to her head. Squaw, she must always listen to her heart that is Great Spirit talking. Your heart, it say marry Kutie!"

Molly paused and looked at the girl, who sat with stormy eyes on the ailing sun. And she forgot her hard-earned wisdom and was just a heart-hungry woman.

"You stay! Stay with Kutie and old Molly! You so sweet! You like little child!" You lie in old Molly's heart like little girl papoose that never came to Molly. You stay! Always, always, Molly will take care of you!"

Rhoda was deeply touched. This was the cry of the famished motherhood of a dying race. She put her soft cheek on Molly's shoulder and her eyes were near-blinded. Kutie, standing on the other side of the camp, looked at the picture with deepening eyes; then he crossed and put his hand on Rhoda's shoulder.

"Dear child," he said, "you must eat your supper, then we must take the trail."

Rhoda looked up into the young man's face. She was exquisite in the falling light. For a moment it seemed as if Kutie must fold her in his arms; but something in her troubled gaze withheld him and he only smiled at her caressingly.

"Before you go," he said, "come to the edge of the camp and look through the glasses."

Rhoda hurried after him, and stared out over the desert. A short distance out, vivid in the afterglow, moved two figures.

It was of Porter, the giant figure of DeWitt, walking with determined strides. Waiting till she could command her voice, Rhoda turned to see who was watching her keenly.

"Will they pick up our trail? Are the poor things badly lost?"

"Billy Porter lost! I guess not! And I gave an enough him so that he ought to join Newman in another twenty-four hours."

Rhoda smiled wistfully.

(Continued next week.)

The Bureau visited to departments matters and to elen.

Results of

THE D

of four a weeks, no examining term for second new given for 1 manufacturer and bottling prizes for factory class There was Dairy Institute on by the The region follows: 21 writers of Farm Dairy Cream and The pro Class 4 (n 296; 2, St 946; 4, St 6, Binehar, 8, Armstrong 10, Coombe, 10, Ghosha, 14, 15, Ghosh 17, Quirrie, Coon, 629; 529

The pro (maximum 194; 2 A. Gibson, 178 E. E. Ke C. C. Barri dock, 154; A. Gray, 14 Collier, and 14, A. E. Gh 145; 16, Peed and E 19, R. Davi 21, G. H. 136; 23, J. Shooer, 15 J. H. Marsh

The follow nora: Judg Armstrong, Koralskog, H. B. Belfort, Scott, Wlart Mimico, Or Gushp, Or Browne, M. Auburn, Or wars, Ont. Lown, Port Coombe, Sli Making Chee Ont. S. M. Armstrong; Milk-1, W. Ont. 1, W. 2, I. F. Stod ficiency-1, thers; 2, T. Ont.

"Will be re examinations teriology.

Examination

In order to fully make cheese factory following, studtain a minimum just wish a whole. There over 60% and 2nd Class gr 75% and over Ranked in 1917. Successful student Class-W. O. C. Chambers.

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.

Results of Examinations at O.A.C.

There were two new features in the Dairy School work for 1918—the Farm Dairy Course was one of four weeks, instead of twelve weeks, as formerly, and there were no examinations at the close of the term for Farm Dairy Students; the second new feature was that of prizes given for judging dairy cattle, for the manufacture of butter and cheese, and bottling milk for city trade; and prizes for proficiency standing in the factory class.

There was no course this year for Dairy Instructors, its place being taken by the Dairy Conference.

The registration by courses was as follows: Factory Course, 24, of whom 21 wrote on the final examinations; Farm Dairy, 3; Cow Testing, 24; Ice Cream and Soft Cheese, 3. Total, 51.

The proficiency list for Factory Class 4s (maximum, 1,200): 1, Muma, 995; 2, Stothers, 988; 3, Richards, 946; 4, Smith, 935; 5, Koralske, 935; 6, Sinclair, 876; 7, Fairweather, 873; 8, Armstrong, 856; 9, Kaufmann, 842; 10, Coombs, 802; 11, Helmut, 787; 12, Lown, 784; 13, Scott, 759; 14, Roth, 745; 15, Gibbers, 695; 16, Pearson, 684; 17, Quirrie, 641; 18, Brown, 635; 19, Coon, 623; 20, Mott, 501; 21, Hicknell, 529.

The proficiency list for Cow Testing is (maximum, 200): 1, G. E. Rathby, 184; 2, A. B. Browne, 181; 3, M. G. Gibson, 178; 4, T. C. Richards, 167; 5, E. G. Koralske, S. A. Stewart, and J. C. Barrigan, each 153; 6, W. Craddock, 154; 9, W. Matthews, 153; 10, A. Gray, 149; 11, H. G. Jones, S. G. Collier, and L. Holliday, each 147; 14, A. E. Gilbert, 145; 15, J. Pinegar, 143; 16, L. Hemmaway, 143; 17, B. R. Peed and H. W. Lennox, each 141; 19, R. Davis, 134; 20, W. Penny, 131; 21, G. G. Hoimes, 127; 22, C. J. Coon, 126; 23, J. H. Adams, 123; 24, K. Shoen, 123; 25, W. E. Mott, 121; 26, J. H. Marshall, 115.

Prize-Winners.

The following is list of prize-winners: Judging Ayrshire Cattle—1, E. Armstrong, Tavistock, Ont.; 2, E. G. Koralske, Hampton, Ont.; 3, P. Pearson, Beiton, Ont. Holsteins—1, W. Scott, Warton, Ont.; 2, T. J. Brown, Mimico, Ont.; 3, W. J. Fairweather, Guelph, Ont. Jerseys—1, A. B. Brown, Milton, Ont.; 2, E. Rathby, Auburn, Ont.; 3, B. Quirrie, Deleware, Ont. Making Butter—1, C. Lown, Port Dover, Ont.; 2, A. H. Coombs, Simcoe, Ont.; 3, W. Scott, Making Cheese—1, G. Sinclair, Bright, Ont.; 2, M. Muma, Inverkip, and E. Armstrong; 3, P. Pearson. Bottling Milk—1, W. Roth, New Hamburg, Ont.; 2, W. Smith, Kitchener, Ont.; 3, I. F. Stothers, Locknow, Ont. Proficiency—1, M. Muma; 2, I. F. Stothers; 3, T. C. Richards, Glencairn, Ont.

*Will be required to pass supplemental examinations in Miscellaneous and Bacteriology.

Examination Results at Kingston

In order to obtain a pass and thus qualify for a diploma by successfully managing a creamery or cheese factory for the six months following, students are required to obtain a minimum of 33% on each subject with a total of 45% on the whole. Those obtaining a total of over 60% and under 75% are granted 2nd Class grade, and those obtaining 75% and over 1st Class grade.

Ranked in order of merit the successful students are as follows: 1st Class—W. O. Gardner, Kempsville; C. Chambers, Hoards; H. Derby, Ely-



The Ford Saves the Hay and Oats the Horses Eat

IT HAS been estimated that five acres of land are required to maintain one horse for a year, and that the same five acres would produce nearly enough food for two people. If 50,000 Canadian farmers each replaced one horse with a Ford, 250,000 acres would be added to the Nation's source of food supply and enough extra food made available to feed 100,000 people.

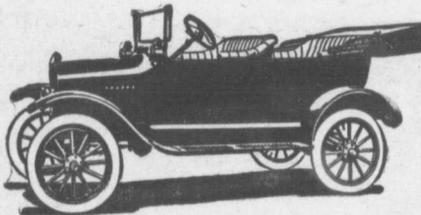
Just think what a great service this means to the country at the present time and the benefit to the farmers from the sale of food produced on this acreage.

A Ford car also saves the farmer a week or more of valuable time each year, which can be used for further productive work. The Ford travels three times as fast as a horse and rig—costs less to run and keep, and is far easier to take care of. With labor so scarce and high priced, time means money, so do not delay in getting your Ford.

Ford

- Touring - \$595
- Runabout - \$575
- Coupe - \$770
- Sedan - \$970
- One-Ton Truck \$750

F.O.B. Ford Ont.



Ford Motor Company of Canada, Limited

Ford, Ontario

To Our Women Readers

Would you not like to have one of these "Wear-Ever" double boilers? Once you have one piece of this aluminum ware you will want a complete outfit. Why not try for this boiler this week. All that is necessary to have it is to secure only Four New Yearly Subscriptions to Farm and Dairy at the regular subscription price of \$1.00 a year. Send these in to us and we will ship you the boiler free.



WEAR-EVER Double Boiler.

Capacity 4 quarts. Given free for only four new subscriptions to Farm and Dairy.

Circulation Department
Farm and Dairy - - - Peterboro, Ont.

Please Mention Farm and Dairy when Writing Advertisers

New Car Lot Policy

Conditions Under Which the Live Stock Branch Pays Breeders Travelling Expenses

THE following revised statement of the Car Lot Policy will become effective May 1st, 1918, and will replace all statements with regard to same previously issued.

Under this Policy the Dominion Live Stock Branch will pay reasonable travelling expenses of a farmer living in Canada, or authorized agent of farmers residing in Canada, who purchases one or more car loads of breeding stock under conditions as hereinafter set forth:

(1) Assistance under the Policy will be confined to purchase of female breeding stock (cattle, sheep or hogs) made at the Union Stock Yards, Toronto; Point St. Charles Stock Yards, Montreal; or the East End Stock Yards, Montreal.

(2) No assistance under this Policy will be allowed when the stock is purchased for speculative purposes.

(3) A car lot shipment must include not less than twenty head of cattle, forty sheep or forty hogs. In a

mixed shipment, two sheep or two hogs will be accepted as equivalent to one head of cattle in fixing the minimum for one car.

(4) Any person desiring to take advantage of the Policy must make formal application to the Representative of the Branch at his nearest Stock Yards, and, before commencing to purchase, must receive from him a certificate authorizing assistance under the Policy. This certificate will indicate the Stock Yards at which the purchase must be made if the benefit of the Policy is allowed. In all cases the certificate will direct the purchaser to his nearest Stock Yards, unless, in the judgment of the Representative of the Branch, the condition of the market at the time warrants an exception being allowed.

(5) Expenses will be allowed, covering railroad transportation from the home of the purchaser to the Stock Yard at which the purchase is made, also hotel expenses for a reasonable

time required to make the purchase.

(6) The purchaser should secure a receipt for his hotel expenses and should attach this receipt to his account. The account should be forwarded in triplicate on forms which will be supplied for the purpose.

(7) The purchaser is further required when forwarding his account to include on forms supplied by the Branch a statement regarding the purchase. The certificate secured from the Representative of the Branch previous to purchasing should also be attached to the account.

(8) Parties purchasing female breeding stock under the terms of the Car Lot Policy, and who comply with the terms of the Free Freight Policy of the Branch, will be entitled to the benefit of both policies on one shipment.

(9) If desired by the purchaser, the services of the Representative of the Branch at the market will be available in an advisory capacity. The actual purchasing must be done, however, by the buyer himself or by his authorized agent. Under no circumstances will any responsibility in this connection be assumed by any officer

of the Branch.

The Markets Representatives of the Branch at the different Stock Yards in Eastern Canada are as follows: W. H. Irvine, 1127 Keele St., Toronto, Ontario; S. H. Chipman, Live Stock Exchange, Bridge St., Montreal, Quebec.

A Plea for Barley

A. L. Watson, Ontario Co., Ont.

ON looking over the official reports regarding acreage devoted to various crops in Ontario, it is astounding to me that the acreage devoted to barley is so small, comparatively speaking. First, the grain crops in growing grain: first, the grain crop itself, and secondly, as a nurse crop for clover and grass. In fulfilling both of these functions, barley excels.

In the many years that we have grown both barley and oats, there has hardly been a year when we have not had a crop of one or the other. An acre from our barley than from our oats. As a feed for dairy cows, along with other concentrates, it is a standard. It is valued highly in all countries of the world, both for feeding and finishing hogs, and it balances skim milk better than any of the crops commonly grown in Canada. I have seen the statement that an acre of barley will grow as much pork as an acre of hucking corn. The barley, I should say, can be produced for half the expense necessary to grow the corn.

When we come to consider barley as a nurse crop, it is almost in a class by itself. It is harvested earlier, grows more erect and stools less, all of which characteristics are favorable to the securing of a good stand of the clover or grass.

Last year all the farmers in this section, and I suppose everywhere over Ontario, were waiting for American corn on which to finish their hogs. Barley will take the place very nicely of this imported corn and for less cost in an average year. I believe there should be 10 to 15 acres of barley at least on every 100 acre farm.

Don't Economize on Lubricating Oil

IF there is one place where penny pinching is not a virtue it is in buying lubricating oil for expensive farm machinery. It is a general falling of those not thoroughly accustomed to the use of machinery that they do not take proper care of the costly implements they purchase, and this falling is often illustrated in the buying of lubricating oil.

If the same wagon, motor car, tractor or farm implement can be made to give service for six years instead of three, it can be figured its original cost has been cut in half. The one detail of proper oiling, more than any other, spells the difference between three and six year service.

There are a number of high-grade lubricating oils on the market. They cost more than ordinary oils, but they freedom from residues that cause friction and wear makes them worth much more than the difference in cost. Some think that "oil is oil," and that is all there is to it. But there is the same difference between two oils that there is between creek water and spring water.

The value of an oil for lubricating motors was well demonstrated in the experience of one man who, while he used cheap oil, had to have the carbon burned out of the motor about four times each year at a cost of about \$12 annually. The first year after he decided to try a good oil, his car was not in the garage for lubrication or carbon troubles a single time. His saving here is got to be measured by the \$12 saved in repair bills. Carbon formed in a cylinder causes wear and tear which permanently injures the motor, detracts from its mechanical perfection, and depletes its horse-power.

Sweet Clov

"SWEET clov most in Canada."

Hunter, of Varners variation at the Fair. "Many ching lots of money from sweet clover per bushel has as high as \$12 bushel as a cash crop. I have seen crops will average \$20 to the acre." "And what do sweet clover straw quired." "Cut it up and mix it principally." "When cut it is also." "An advantage should be mentioned: clover sod is as easy to wheat. This is more say for alfalfa."

Checking or D

FEW subjects thoroughly discussed in the past two years are the merits of checking or D for ensilage. The up for discussion at the Fair. "We always in hills with the h and for anything we as much corn per neighbors," stated H Ontario county. "A can plant four acres marking with a 12- but little time."

"We check-row out marked Mr. Bagg with check rows, hae at all, except occasional thistles. Ways, and we, too, good crops as our, if we didn't, however, fer to take in an extra the crops clean with

Reliable

IN a herd of fourteen an average yield lbs. milk and 260 cow was a five-year-old was 11 years old and only a three-year-old, 7,564 lbs. milk and 300 two poorest were again

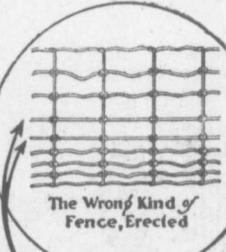
So it is not always misse production; I feed, for these 14 cows; but it does is some at present un which enables one c ter use of the same q tity of food and two thousand pounds than her stable mate's

With such remarks plain slight in the individual milk record owner is in no doubt the best cows to keep

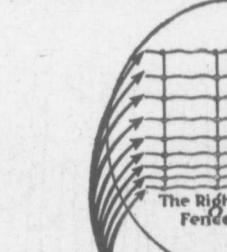
stock. But without there is no reliance on The best of it is the need go to the trouble sheets of paper riling them to suit his

ation to the Dairy e he can obtain, for ever, convenient rules milk record forms for either daily or on t month, together with forms and a herd rec complete year's figure it will pay to use the Babie guides.—C. F. V

Today, the office just working faithfully for many years, when he is Dyer by asking for "We can't get along and you," said the boy, need a vacation. You



The Wrong Kind of Fence, Erected



The Right Kind of Fence, Erected

'SNAP!' **'SAFE'**

PAGE—THE ALWAYS UNIFORM FENCE

The great big fact about Page Fence is its uniformity. Fence woven on Page Looms is sure to be uniform and that's the only kind of fence you can afford to buy. The other kind may be a little cheaper in first cost, but what a difference a few years make. Many of the first fences we made, and that's over 25 years, are still giving the best of good service.

PAGE WIRE FENCES

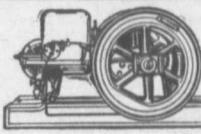
ARE FULL No. 9 GAUGE WIRE

Even the locks are full gauge. The finest quality wire is used—extra strong, very rigid, tight-locked and evenly spaced.

For a life-time security against fence troubles, "get Page Fence and Gates.

There is a Page Wire Fence for every purpose. Page Gates, built as carefully as Page Wire fences, are obtainable in every regular size. Write our nearest branch for price list of all Page Products—Page Fences, Gates, Engines or Wood-saws. Information will be cheerfully given. Drop us a line to-day.

SHIPPING TERMS:—Freight allowed on all shipments of 200 pounds or more, to any place in Old Ontario or Quebec, when payment is made within thirty days.



THE BEST WORKMAN YOU CAN GET

is the one that never tires. The sturdy little Page is always on the job. It is in always ready for work when you are.

It will do more work than a hired man and it costs about as much to buy as one of his monthly cheques. Its running expenses only amount to about 2c per hour for fuel.

A Page will hold hay to the mow, turn the churn, run the cream separator, the mechanical masher, and pump water for the stock, and as many other odd jobs around the farm as you can dig up.

There are two types of Page engines—one burning Gasoline, and the other Kerosene (or Gasoline), and 3 sizes, ranging from 1 1/2 to 4 H. P.

Price list on request.

THE PAGE WIRE FENCE COMPANY

LIMITED

WALKERVILLE 519 Notre Dame St., Montreal. WINNIPEG.

Sweet Clover in Grey

"SWEET clover is very common in our section of Canada," remarked W. H. Hunter, of Varney, during a conversation at the Guelph Winter Fair. "Many claim to be making lots of money out of it, principally from sweet clover seed. The average price per bushel has been \$10.50, and as high as \$12 has been offered for a carload. I believe that this year our crops will average over 10 bushels of seed to the acre."

"And what do you do with the sweet clover straw?" a listener enquired.

"Cut it up and mix it with the ensilage principally," replied Mr. Hunter. "When cut it is good for bedding also. An advantage of the crop that should be mentioned is that the sweet clover seed is as easy to plow as buckwheat. This is more than one can say for alfalfa."

Checking or Drilling Corn

FEW subjects have been more thoroughly discussed during the past two years than the relative merits of checking vs. drilling corn for ensilage. The old subject came up for discussion at the Guelph Winter Fair. "We always plant our corn in hills with the hand corn planter, and for anything we can see we get as much corn per acre as any of our neighbors," stated H. C. Hamill, from Ontario county. "A couple of boys can plant four acres in a day, and the marking with a 12-foot marker takes but little time."

"We check-row our corn also," remarked Mr. Bagge, from Edgely. "With check rows we do not have to hoe at all, except to knock out occasional thistles. We scuffle both ways, and we, too, seem to get as good crops as our neighbors. Even if we didn't, however, we would prefer to take in an extra acre and keep the crops clean without the hoe."

Reliable Guides

IN a herd of fourteen cows that gave an average yield last year of 6,088 lbs. milk and 260 lbs. fat, the best cow was a five-year-old, the second was 11 years old, and the third was only a three-year-old with a yield of 1,264 lbs. milk and 305 lbs. fat. The two poorest were aged six and 14.

So it is not always age that determines production; it is not always feed, for these 14 cows were all fed alike; but it does largely rest upon some at present unknown principle which enables one cow to make better use of the same quality and quantity of feed and out of it produce two thousand pounds of milk more than her stable mate.

With such remarkable differences in plain sight it is every herd where individual milk records are kept, the owner is in no doubt as to which are the best cows to keep as foundation stock. But without such records there is no reliable guide in selection.

The best of it is that no dairyman need go to the trouble of finding suitable sheets of paper and laboriously ruling them to suit him. For on application to the Dairy Branch, Ottawa, he can obtain, free of any cost whatever, convenient ruled and printed milk record forms for taking weights either daily or on three days per month, together with "feed record forms and a herd record book for the complete year's figures. To-day, it will pay to use them; they are reliable guides.—C. F. W.

Tony, the office janitor, had been working faithfully at his job for several years, when he surprised his employer by asking for a vacation.

"We can't get along very well without you," said the boss. "You don't need a vacation. You'll only blow in

your money and come back broke." "I like to have vacation," persisted Tony. "I gotta married and I kinda likea to be there."

CREAM WANTED

For better service and higher market prices, ship your cream to us. Cans supplied free. Watch this space for prices. Our price next week 52c per lb. fat. A card brings particulars.

MUTUAL DAIRY AND CREAMERY CO. 743 King St., W., Toronto

Horse Clippers Sharpened

Don't throw away your old clippers blades. Mail them to us and we will sharpen and return them at small cost.

H. T. MILLARD, 225 HUNTER ST. Phone: 1256 PETERBORO, ONT.



An Aid to Successful Farming

THE successful farmer of to-day is the one who builds permanent improvements. The time for makeshifts is past. The farmer recognizes that he is under a great handicap in his efforts to make money, if he has continually to sink profits in temporary repairs.

"What the Farmer Can Do with Concrete"

is an aid to successful farming. Over 100,000 farmers have realized this. Many thousands of these have completely made over their farms, while others have acted on some of its valuable suggestions. Only with concrete for his building material can the farmer have his farm buildings weatherproof, water-tight, vermin-proof, permanent and sanitary.

Our 100-page book contains directions which will enable the farmer to construct all sorts of improvements of Concrete in old times—with the help of his man. It is written in clear, plain language, and contains many diagrams, which any farmer can understand.

Send for it—it will be mailed free

CANADA CEMENT COMPANY LIMITED

210 HERALD BUILDING MONTREAL



BREEDERS ATTENTION!

Now is The Time-- To Sell Mature Bulls

There are hundreds of dairy farmers all over Canada who all winter have been intending to secure a sire for the coming season. Many of them have not yet secured the sire they want and are now looking about to see what there are on the market.

They may have intended getting a younger sire during the winter, but for some reason or another were prevented from doing so. Mature bull time in the whole year that more than any other is a likely time for making successful sales of this class of animals, it is during the coming two or three months.

This is the time to catch the big dairy farmers who want summer milk for cheese factory and other purposes. It is the time to catch the appointed, or the man who has been waiting till he sees what exactly suits him.

If you have a mature bull for sale, advertise him now.

For particulars in live stock advertising write

C. G. McKILLIPAN
Live Stock Dept.
FARM AND DAIRY - PETERBORO ONT

York County Holsteins

at auction
In Their Annual "Quality" Sale
at RICHMOND HILL FAIR BUILDINGS
Wednesday, May 1st, 1918

60 HEAD  60 HEAD

Nearly all females fresh or due to freshen soon. A number of choice young heifers. A few bulls of excellent quality.
York County is well known as a Holstein center. Our herd sires include a 35-lb. son of the great King Segis, a son, a full brother, half brothers and grandsons of the world's record cow, May Debit Sylvia, and sons of King P. A. Canada.
York County has probably more thirty-pound cows than any other county in Canada, as well as several world's record cows.
We feel sure the satisfied buyers at previous sales, and the determination of York County breeders to give satisfaction will, as before, insure the success of this sale.

Sale Committee:
R. W. E. BURNABY
R. F. HICKS
W. F. ELLIOTT.

SEND FOR CATALOGUE TO
R. W. E. BURNABY,
Jefferson, Ont.

HOLSTEINS

One 2-year-old bull; 1 bull 18 months, out of a 23½-lb. 3-year-old dam; 1 bull 13 months; others younger.

R. M. Holtby R.R. No. 4 Port Perry, O nt

ELMCREST STOCK FARM

Offers for Sale

No. 1.—Bull, 1 month old—Dam Cannon Heifer, Faforit, 24618—record at 3½ years, 457 lbs. milk, 27.05 lbs. butter. She is a daughter of the beautiful Ronie Fouch, grand champion at Guelph Dairy Test, 1914. Sire—a son of 59.78 lbs. dam's record of a 27.84 cow.
Also a few fresh cows, splendid producers with world's record breeding prices. Very Reasonable.

W. H. CHERRY Bell Phone HAGERSVILLE, ONT.

Four 30 lb. Cows this Winter at VILLA VIEW

We have for sale the best lot of bull calves that we have ever been able to offer from dams with records up to 2875; many of them good prospects for 30 lbs. Also one bull ready for service from a 19-lb. two-year-old. Buy your next bull where 30-lb. cows are being developed, and faster than in any other herd in Canada. Write to-day to

ARBOGAST BROTHERS SEBRINGVILLE, ONT.

KORNGOLD FARM

offers for sale a choice bull

Korngold Emerson Burke, No. 52826, a son of a 21-lb. dam, well grown, ready for service, and a good individual. Write for Extended Pedigree and Price.
F. J. McALPINE R. R. No. 1 BLOOMFIELD, ONT.

A RARE BARGAIN

Registered Holstein bull, yearling, sired by a half brother of Totilla of Riverside, 2469 lbs. milk, 167 lbs. butter in one year. Record of sire's dam's milk 454, butter 30 lbs. Dam's record milk 479, butter 23.62. Straight and well grown. Price \$100. Write, phone, or come.
LANINGDALE STOCK FARM VILLA NOVA, ONT.

Wonderful Individuality

combined with the World's greatest milk and butter records, makes Premier Lyons DaCo, No. 32899, who was born Dec. 21, 1911, one of the greatest bargains of the year. I guarantee him in every way. Our herd is regularly tuberculin tested, thus assuring a healthy calf. Don't delay, write at once for an extended pedigree and my price on him. Markings more white than black. Sire, Sir Lyons Faforit, whose dam and sire's dam average 21 lbs. milk, 27 lbs. milk. By a brother the sire or dams of Segis Payne Johanna, 66.63 lbs. Pancher Farm Maxie, 64.84 lbs. and Mable Segis Korndyke, 46.83 lbs.; also 46 cows with records over 30 lbs. 30,000 BUBBERCUP, Dam, Best DaCo Sibaulling with a record of 612 lbs. of milk with 19.83 lbs. of butter, best day's milk 51.4 lbs. Sibs will undoubtedly increase her record greatly at next freshening. One daughter sold on official test as a Jr. 3, 7.4 lbs.

COME AND SEE HIM

W. G. Bailey, Oak Park Stock Farm, Paris, Ont.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the leading exponent of dairying in Canada. The great majority of the members of the Canadian Holstein-Friesian Association are readers of this paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS FROM MAR. 1ST TO MAR. 31ST.

Mature Class.

1. Hill-Crest Pontiac Sunie, 22709, 6y. 4m. 44; 784.8 lbs. milk, 27.37 lbs. fat, 24.08 lbs. butter.
30-day record: 2211.5 lbs. milk, 106.41 lbs. fat, 155.63 lbs. butter, G. A. Brethorn, Norwood.

2. Pontiac Atlas Francis, 24246, 6y. 10m. 13d.; 820.3 lbs. milk, 29.54 lbs. fat, 28.18 lbs. butter, J. J. Fox, Guelph.
3. Bonnie Abbecker Mercona, 17653, 6y. 10m. 29d.; 814.4 lbs. milk, 28.14 lbs. fat, 28.45 lbs. butter, L. A. Everett, Simcoe.
4. Annie H. Paine, 11m. 2d.; 614.4 lbs. milk, 22.41 lbs. fat, 28.02 lbs. butter.

14-day record: 1353.4 lbs. milk, 44.59 lbs. fat, 58.74 lbs. butter.
30-day record: 2460.1 lbs. milk, 92.76 lbs. fat, 104.70 lbs. butter, Elsworth Plant, Burrowsville.

5. Riverdale Lyons Inks, 23742, 6y. 2m. 26d.; 469.6 lbs. milk, 20.31 lbs. fat, 25.39 lbs. butter, Allison Bros., Chertseyville.
6. Anita Peach Country DaCo, 19129, 8y. 10m. 25d.; 670.7 lbs. milk, 19.96 lbs. fat, 24.85 lbs. butter, Thomas Healy, Spencerville.

7. Nettie Payne Ind, 25422, 6y. 2m. 20d.; 466.3 lbs. milk, 19.21 lbs. fat, 24.53 lbs. butter, M. H. Halsey, Springfield.
8. Pontiac 11m. 24d.; 452.9 lbs. milk, 18.61 lbs. fat, 22.26 lbs. butter, Oswald Wallace, Burgessville.

9. Ticks Teaks DaCo, 9009, 5y. 11m. 8d.; 585.8 lbs. milk, 18.49 lbs. fat, 32.12 lbs. butter.
15-day record: 1066.4 lbs. milk, 37.41 lbs. fat, 46.77 lbs. butter, A. J. Tansbury, Orono.

10. BAVARIA Teaks DeLoer, 22435, 6y. 10m. 4d.; 432.5 lbs. milk, 17.96 lbs. fat, 22.45 lbs. butter.
14-day record: 886.9 lbs. milk, 35.14 lbs. fat, 43.55 lbs. butter, Elsworth Plant.

21-day record: 1323.3 lbs. milk, 52.01 lbs. fat, 62.02 lbs. butter, Elsworth Plant.
11. Canary Flora DaCo, 22445, 6y. 10m. 10d.; 545.9 lbs. milk, 17.17 lbs. fat, 21.46 lbs. butter, Thomas Healy.

15-day record: 1065.6 lbs. milk, 34.39 lbs. fat, 42.87 lbs. butter, J. R. Hamner, Norway.
12. Hiemko's 1m. 18906, 7y. 11m. 9d.; 421.3 lbs. milk, 17.09 lbs. fat, 21.36 lbs. butter, Oswald Wallace, Burgessville.

13. Fairmount Netherland Cornucopia, 21581, 6y. 8m. 17d.; 412.5 lbs. milk, 16.05 lbs. fat, 21.15 lbs. butter, J. Alex. Wallace, Simcoe.

14. Triembe Pleis 3rd, 2267, 11y. 8m. 12d.; 486.6 lbs. milk, 16.64 lbs. fat, 20.80 lbs. butter, Oswald Wallace.
15. Sadie's Wayne DaCo, 16586, 7y. 11m. 18d.; 592.8 lbs. milk, 16.49 lbs. fat, 20.62 lbs. butter, Thomas Healy.

16. Flora DaCo Pleistie 3rd, 1492, 7y. 10m. 3d.; 375.8 lbs. milk, 16.36 lbs. fat, 20.45 lbs. butter, H. C. Hemmer.
17. Witty of Pleasant View, 12215, 19y. 25d.; 545.4 lbs. milk, 16.03 lbs. fat, 20.04 lbs. butter, J. P. Smith, Orono.

18. Helen Mercedes DaCo, 22923, 6y. 8m. 14d.; 481.6 lbs. milk, 15.23 lbs. fat, 19.02 lbs. butter, Lincoln Co. Industrial Home, St. Catharines.
19. Princess Abbecker 5418, 10y. 7m. 26d.; 595.7 lbs. milk, 14.90 lbs. fat, 17.76 lbs. butter, J. Alex. Wallace, Simcoe.

5r. Four Year Class.

1. Alice Tenness's Canrv, 95785, 4y. 8m. 18d.; 695.6 lbs. milk, 24.17 lbs. fat, 30.23 lbs. butter.
30-day record: 2870.4 lbs. milk, 95.10 lbs. fat, 120.13 lbs. butter, A. C. Hardy, Brookville.

2. Angie M. Pouch, 54844, 4y. 7m. 4d.; 607.4 lbs. milk, 18.45 lbs. fat, 22.81 lbs. butter.
30-day record: 2489.9 lbs. milk, 72.79 lbs. fat, 98.59 lbs. butter, J. R. Hamner, Norway.

3. Lakeview Mona Rattler, 56019, 4y.

TYPEWRITER PEDIGRES

with records up to date. \$1.00 a piece, including 2 extra carbon copies. Ten or fifteen pedigrees in one order for catalogue work, including one copy only of each. 75c a piece.

Catalogues \$2.00 per page, complete, including making out of pedigrees.

Orders should be sent in early.

The Canadian Holstein Sales Co., Simcoe, Ont.

Telephone 130.



FOR SALE

Jersey cattle, bred in the purple. Over 100 Jerseys from which to choose. Imported and Canadian bred Clydesdales. Also, two large farms with modern buildings.

BALDWIN'S REGISTERED COATICOOK, QUEBEC

For MILK, BUTTER, CHEESE, VEAL

Holstein cows stand supreme. If you try just one animal you will very soon want more. Write the HOLSTEIN FRIESIAN ASSOCIATION.

W. A. CLEMONS, Sec., St. George, Ontario.

For Quick Sale

Pure bred Holstein Bull calves, sired by a grandson of May Echo, 25,700 cow and from choice dams with 100-lb. sires. Price \$40. Also a few heifers. Write me if you want a bargain.

JAS. MOORE, R.R. 1, Almonte, Ont.

CURDALAC AND SPONGY PEPSIN

(STANDARDIZED)

The First and Original Peptic Congluants.

Not an experiment. Time-tried and a demonstrated success in the manufacture of Canadian cheeses.

START-O-LAC

(LACTIC-ACID CULTURE)

A pure culture of selected and tested lactic-acid-producing bacteria for ripening milk and cream, and improving the quality and flavor of cheese, cottage cheese, butter and buttermilk.

GERMTOX

(NOT A POISON)

A scientifically prepared Germicide, Disinfectant and Deodorant. The ideal sterilizer for all dairy utensils.

The above products are sold by all dealers in dairy supplies. Write to us for descriptive booklets and any other desired information.

PARKE, DAVIS & CO.

WALKERVILLE, ONT.

MONTREAL, QUE.

Am. 44; 521.2 lbs. milk, 17.85 lbs. fat, 22.65 lbs. butter. Lakewood Dairy 3rd, 24850, 4y. 10m. 164; 406.1 lbs. milk, 14.62 lbs. fat, 15.29 lbs. butter. Lakewood Farm.

Jr. Four Year Class.
1. Hill-Crest Vase DeKool, 29739, 4y. 6m. 254; 560.2 lbs. milk, 21.08 lbs. fat, 26.35 lbs. butter.

30-day record: 2268.1 lbs. milk, 82.57 lbs. fat, 104.71 lbs. butter. G. A. Brethren.
2. Pontiac Aris, 31626, 3y. 11m. 154; 544.4 lbs. milk, 21.06 lbs. fat, 25.33 lbs. butter.

30-day record: 1372.0 lbs. milk, 58.69 lbs. fat, 110.86 lbs. butter. K. M. Dalgleish, Kenmore.

3. Una Hermes Darkness, 33436, 4y. 6m. 42; 384.5 lbs. milk, 14.04 lbs. fat, 17.56 lbs. butter. A. Campbell.
4. Het Loo Mary, 29732, 4y. 1m. 134; 413 lbs. milk, 17.78 lbs. fat, 17.78 lbs. butter. A. J. Campin.

Br. Three Year Class.
1. Hill-Crest Saddle Crosby, 25411, 3y. 10m. 164; 534.6 lbs. milk, 23.46 lbs. fat, 29.23 lbs. butter.

30-day record: 1595.0 lbs. milk, 63.28 lbs. fat, 79.10 lbs. butter. G. A. Brethren.
2. Lottie Johanna Korndyke, 30556, 3y. 11m. 164; 416.6 lbs. milk, 21.64 lbs. fat, 17.85 lbs. butter. W. C. Houck, Black Creek.

3. Nettie Inka Pontiac, 30679, 3y. 10m. 174; 560.4 lbs. milk, 19.35 lbs. fat, 24.81 lbs. butter.

30-day record: 2103.0 lbs. milk, 79.47 lbs. fat, 99.34 lbs. butter. A. C. Hardy, Brookville.
4. Pontiac Lady Waldorf, 30672, 3y. 11m. 204; 490.3 lbs. milk, 19.85 lbs. fat, 21.81 lbs. butter.

30-day record: 2186.0 lbs. milk, 81.79 lbs. fat, 102.28 lbs. butter. A. C. Hardy.
5. Princess Gertrude Segis, 31153, 3y. 10m. 254; 537.5 lbs. milk, 20.28 lbs. fat, 23.73 lbs. butter. Morris Huff, Bloomfield.

6. Maude Payne, 30533, 3y. 11m. 94; 359.3 lbs. milk, 17.12 lbs. fat, 21.40 lbs. butter. C. C. Haviland, Willowville.
7. Lyons Hervengard Mercedes, 28505, 3y. 6m. 74; 483.8 lbs. milk, 14.54 lbs. fat, 20.81 lbs. butter. J. F. Fox, Guelph.

8. Schulling Canary Merona, 30180, 3y. 11m. 102; 512.5 lbs. milk, 18.81 lbs. fat, 20.91 lbs. butter. Charles Hilliker, Burgessville.
9. Norma DeKool Pieterie, 34613, 3y. 11m. 14; 426.0 lbs. milk, 13.69 lbs. fat, 16.49 lbs. butter. H. C. Hamner.

Jr. Three Year Class.
1. Het Loo Korndyke Boon, 36450, 3y. 4m. 194; 485.0 lbs. milk, 20.28 lbs. fat, 25.48 lbs. butter.

16-day record: 382.9 lbs. milk, 20.75 lbs. fat, 49.93 lbs. butter. W. L. Shaw, Newmarket.
2. Lakewood Canary Aris, 31550, 3y. 6m. 64; 386.0 lbs. milk, 16.12 lbs. fat, 15.58 lbs. butter. Lakewood Farm, Bronte.

3. Elmerette Madeline Schulling, 33467, 3y. 1m. 64; 369.0 lbs. milk, 14.5 lbs. fat, 18.30 lbs. butter. Ezra G. Schweitzer, Stratford.

4. Lakewood Mona Rattler Girl, 31651, 3y. 1m. 16; 392.4 lbs. milk, 14.48 lbs. fat, 18.11 lbs. butter. Lakewood Farm.

5. Elmerette Lenora DeKool A, 33564, 3y. 1m. 164; 437.5 lbs. milk, 14.23 lbs. fat, 17.41 lbs. butter. Ezra G. Schweitzer.
6. Helena Pauline Burke, 36525, 3y. 4m. 124; 324.1 lbs. milk, 11.32 lbs. fat, 16 lbs. butter.

14-day record: 634.0 lbs. milk, 23.70 lbs. fat, 29.37 lbs. butter. D. Foster.
Br. Two Year Class.
1. Lakewood Dutchland Calamy Rose, 27415, 3y. 6m. 34; 482.3 lbs. milk, 25.37 lbs. fat, 31.71 lbs. butter.

16-day record: 348.3 lbs. milk, 45.97 lbs. fat, 56.34 lbs. butter. Dr. P. A. Heslop, Freeman.

2. Hill-Crest May Pontiac, 36705, 3y. 10m. 64; 512.1 lbs. milk, 16.64 lbs. fat, 20.59 lbs. butter.

30-day record: 2126.0 lbs. milk, 67.60 lbs. fat, 84.55 lbs. butter. G. A. Brethren.
3. Lenore Johanna Pieterie, 28508, 3y. 7m. 64; 371.2 lbs. milk, 14.46 lbs. fat, 15.94 lbs. butter. W. C. Houck, Black Creek.

4. Fairmont Snowflake Alcatraz, 36389, 3y. 6m. 12; 384.3 lbs. milk, 13.98 lbs. fat, 17.35 lbs. butter. Peter S. Arbogast, Mitchell.

5. Charlotte Ormsby Segis, 41165, 2y. 6m. 114; 494.3 lbs. milk, 12.43 lbs. fat, 16.79 lbs. butter. W. C. Houck.
6. Aggie Cornucopia Foch, 42424, 3y. 16.46 lbs. milk, 16.46 lbs. milk, 13.17 lbs. fat, 16.46 lbs. butter.

14-day record: 687.9 lbs. milk, 35.29 lbs. fat, 31.43 lbs. butter.
30-day record: 1021.5 lbs. milk, 37.17 lbs. fat, 46.47 lbs. butter. H. C. Hamner.
7. Hoopa Loo Koryk, 34411, 2y. 11m. 64; 207.6 lbs. milk, 12.62 lbs. fat, 16.65 lbs. butter. J. B. Hamner.

8. Helio Pieterie Korndyke, 28094, 2y. 9m. 94; 263.2 lbs. milk, 11.88 lbs. fat, 14.55 lbs. butter.
14-day record: 702.8 lbs. milk, 33.19 lbs. fat, 35.92 lbs. butter. J. F. Fox, Guelph.

9. Flus Sylvia Foch, 43359, 2y. 6m. 274; 407.7 lbs. milk, 11.83 lbs. fat, 14.79 lbs. butter.
10. Colantha Pieterie Banks, 42413, 2y. 6m. 174; 290.9 lbs. milk, 9.71 lbs. fat, 12.14 lbs. butter. J. B. Hamner.

Jr. Two Year Class.
1. Het Loo Dutchland Korndyke, 38495, 2y. 4m. 164; 378.2 lbs. milk, 18.45 lbs. fat, 23.04 lbs. butter.

14-day record: 745.4 lbs. milk, 35.37 lbs. fat, 44.09 lbs. butter. W. L. Shaw, Newmarket.
2. Pontiac Sara Tote, 32514, 2y. 1m. 204; 484.9 lbs. milk, 17.11 lbs. fat, 22.94 lbs. butter.

30-day record: 1677.0 lbs. milk, 74.96 lbs. fat, 82 lbs. butter. C. H. Taylor.
3. Het Loo Queen Pie, 42500, 2y. 2; 42; 322.0 lbs. milk, 15.26 lbs. fat, 19.35 lbs. butter. W. L. Shaw.

4. Clover Hill Lyons Imperial, 35372, 2y. 6m. 194; 426.6 lbs. milk, 15.93 lbs. fat, 19.31 lbs. butter. The C. O. Industrial Farm, Lakewood Dutchland Segis DeKool, 36823, 2y. 6m. 64; 386.9 lbs. milk, 15.37 lbs. fat, 19.21 lbs. butter. Dr. P. A. Heslop.

6. Het Loo Gretchen, 42730, 2y. 2m. 204; 355.4 lbs. milk, 14.89 lbs. fat, 18.61 lbs. butter. W. L. Shaw.

7. Lakewood Dutchland Duches, 38998, 2y. 1m. 204; 338.1 lbs. milk, 14.23 lbs. fat, 15.62 lbs. butter. Dr. P. A. Heslop.
8. Het Loo Colantha, 35484, 2y. 3m. 174; 325.2 lbs. milk, 13.78 lbs. fat, 16.63 lbs. butter. W. L. Shaw.

9. Sylvia Hervengard Payne, 44663, 2y. 6m. 104; 382.0 lbs. milk, 13.12 lbs. fat, 16.01 lbs. butter. A. J. Campin.
10. Het Loo Boon Korndyke, 38500, 2y. 2m. 244; 344.4 lbs. milk, 12.89 lbs. fat, 15.74 lbs. butter. W. L. Shaw.

11. Maude DeFloor, 43483, 2y. 2m. 244; 327.2 lbs. milk, 13.74 lbs. fat, 14.68 lbs. butter. W. C. Houck.
12. Cory Pieterie Payne, 42150, 2y. 2m. 204; 317.0 lbs. milk, 11.64 lbs. fat, 14.55 lbs. butter. C. C. Haviland, Willowville.

13. Colony Aggie Pieterie, 38774, 30-day record: 511.4 lbs. milk, 21.91 lbs. fat, 14.35 lbs. fat, 20.84 lbs. butter.
60-day record: 4165.0 lbs. milk, 144.34 lbs. fat, 189.80 lbs. butter.

150-day record: 119.9 lbs. milk, 21.28 lbs. fat, 24.94 lbs. butter. Colony Farm, Escondido, B. C.

The sensational feature of this month's report is the senior two-year-old record of Lakewood Dutchland Calamy Rose with 31.71 lbs. fat in 7 days. This heifer with first calf daughter Alva Foch, Canadian champion for 16 years, also former world champion, whose record was made with second calf. Dr. Heslop, owner of this heifer, has never seen any official test before, which makes the record all the more interesting in the senior two-year class Colony Aggie Pieterie is hitting a merry clip, increasing her 30 and 60 day records over 100 lbs. and making 264.94 lbs. butter and 783.9 lbs. milk in 120 days. She has been on pasture at 26 months without special preparation and made such an impressive showing as soon as she was given a chance that it is planned to run her next official for the whole year.—W. A. Thomas, Secretary.

AVONDALE FARM OFFERS

1. A choice young bull, born Nov. 2, 1917, sired by "Woodcrest Sir Clyde" dam a 23-lb. daughter of "Prince Hervegen Pletsj"; 2nd dam, 27.63-lb. A bargain for immediate sale.

2. Also a grand young bull, born Oct. 6, 1917, light in color, sired by "King Echo Sylvia Johanna." This is the \$5,000 yearling son of Heiko Model Johanna 2nd, the twelve 37-lb. cow. Dam of calf is a 15-lb. two-year-old daughter of "K. P. A. Canada"; 2nd dam, 29.96-lb.; 3rd dam, 31.70-lb. A bargain.

H. LYNN, Avondale Farm, Brockville, Ont.

HERE'S A TOP NOTCHER

Sire—KING SEGIS WALKER.

Dam—30 lb. daughter of PONTIAC KORNDYKE. He's only a baby, but he will grow.

A. A. FAREWELL - OSHAWA, ONTARIO

SUNNYBROOK FARM HOLSTEINS

Get them while they last! We have only 3 of our young bulls of service-able age left. Do not miss this opportunity. You will never get finer individuals, with such official backing, so reasonable.

Jos. Kilgour - Eglington P.O. - North Toronto

SPRUCEDALE FARM Offers For Sale

Two Holstein bulls for service from record dams.

No. 1 born February 8th, 1917; seven-eighths black, whose dam as Jr. three-year-old gave 438 lbs. milk with nearly 16 lbs. butter.

No. 2 born March 31st, 1917; mostly white, whose dam as Jr. three-year-old gave 360 lbs. milk and over 17 lbs. butter.

Also young heifers. These are good straight bulls. Write for particulars or come to see them.

Sebringville Station 1 Mile. - R. R. No. 3. - STRATFORD, ONT.

CHOICE BULLS READY FORSERVICE

No. 1—By a son of MAT ECHO STYLVA His two nearest dams (both Canadian champions), average 35.23 lbs. milk in seven days. Price \$1,000.

No. 2—By a son of MAT ECHO STYLVA. His two nearest dams (one a four-year-old), average 34.17 lbs. butter in seven days. Price \$400.

These extra choice young bull calves from \$200 to \$1,000. We have sold thirty-five bulls this winter.

R. W. E. BURNABY, Highland Lake Farm (Farm at Steps Twp. St. Radial) Jefferson, Ont.

BROOKDALE STOCK FARM OFFERS

SEVEN RICHLY BRED HOLSTEINS of Korndyke breeding, and bred to one of the very best bulls of the breed. One cow nine years old, her daughter 4 years old. Two extra nice three year olds coming in with first calf, and a beautiful heifer rising one year. Here is a bargain for any one looking for richly bred Holsteins, young, and from the best strain on earth. I am pricing the lot of five females for \$300.00, loaded at Phillipsville Station.

WM. C. STEVENS - PHILLIPSVILLE, ONT.

DON'T SCRAP

that machine just because it has a few broken parts which you cannot conveniently replace. Have them welded by the OXY-ACETYLENE process. We repair broken parts of farm machinery or engines—in fact any broken metal, whether cast iron, steel, brass, or aluminum; melting to gether the broken edges and making the article as strong as new.

GIVE US A TRIAL.

Send articles by express. Write or phone for time required and prices.

H. T. MILLARD, 225 HUNTER ST. Phone 1256, PETERBORO, ONT.

DON'T BUY A BULL till you see this one

REMEMBER our herd sire is Fair View Korndyke Boy, a son of Pontiac Korndyke, 135 A. R. O. daughters, and 69 proven sons. REMEMBER his first 10 daughters at 2 years made 7-day records averaging 30 lbs. and who has now 7 daughters with records between 20 lbs. and 29 lbs.

SEE ABOUT THIS ONE

We have JUST ONE of his sons left. He is ready for service. We are offering him at a reasonable figure. His dam is a 30-lb. cow, with a 20-lb. 2-year-old daughter. Just consider what he is worth in a good herd.

Write us about this fellow and about a few younger ones from daughters of FAIRVIEW KORNDYKE BOY for your Junior sire.

LOWBANKS STOCK FARM
K. M. Dalgleish - Kenmore, Ont.

FARMERS' BUSINESS

For the past 64 years, this Bank has given particular attention to the business of Farmers.

We have helped many over the rough places, and have aided many more to the highest plane of success.

We are prepared to extend you every aid within legitimate banking practice.

Come in at any time and talk over your affairs with us. You are always welcome.



THE MERCHANTS BANK OF CANADA
Established 1864.

Head Office: Montreal. OFFICE OF CANADA

with its 183 Branches in Ontario, 23 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 11 Branches in Alberta, and 3 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

They are Fighting-Dying-for YOU! What are You Doing for THEM?

IF only you could be in France, close to your boy, think of the comforts you could send him into the lines, how you could hearten him for the supreme ordeal of battle, shield him by your advice, from temptation, comfort him in pain, help him turn his eyes, not always downward into the chaos of war, but upward to the Right we fight for, and to the higher things he learned on your knee

But no—thousands of miles separate you! Not for you are his furloughs, no visits to camps for you, no privilege of visiting your boy in hospital, if need be. Few and far between are the comforts you can send across the wide seas!

Would that you had a friend over there to perform these offices for you! Thank God, **you have that friend.** The Y.M.C.A. is ever at your boy's side, from the day he enlists to the day he dons his uniform—in camps, trains, boats, in the streets of the big city, in hospital, behind the firing lines—and often right into the trenches—everywhere.

"Right on the heels of the dashing Canadian soldiers at Vimy Ridge the Y.M.C.A. men were serving out biscuits and chocolate to the tired men," said the dispatches. The General was enthusiastic and recommended one of the Y.M.C.A. men for the Military Cross!

Said Lord Northcliffe, "I do not think the War could be fought without the Y.M.C.A.!" A general declared, "The benefit to the troops is beyond all calculation." In the words of Ralph Connor, "The Y.M.C.A. is nearer to the boys than anything else."

Think of the tremendous cost of building and maintaining hundreds of huts with all the thousand and one comforts that must be provided. What will you give to show that you care for your boy's welfare? At least \$2,250,000 is needed for 1918. For the sake of your precious boys, be Generous!



War-Work Summary

There are—
89 branches of Canadian Y.M.C.A. in France.
74 branches in England.

More than 60,000 cups of hot tea and coffee distributed daily in France—free. Estimated cost for 8 months, \$48,000.

150,000 magazines distributed free every month. (Estimated cost \$15,000).

\$125,000 used in 1917 to build huts in France.

Thousands of soldiers decide for the better life.

Y.M.C.A. sells many useful things to soldiers for their convenience.

Profits, if any, all spent for benefit of soldiers.

Service to boys in Camp hospitals.

Red Triangle Clubs for soldiers in Toronto, St. John, Montreal and other places. Centres in Paris and London for men on leave.

Out of Red Triangle Fund, \$75,000 is to be contributed to the war work of the Y.W.C.A.

Cost of administration of Y.M.C.A. war work is less than 1%.

Y.M.C.A. Red Triangle Fund

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

Canada Wide Appeal

Dozens of Y.M.C.A. dug-outs in forward trenches under fire.

\$100,000 needed for athletic equipment (helps morale of soldiers).

Y.M.C.A. saved hundreds of lives at Vimy Ridge by caring for walking wounded.

Over 100 pianos in England and France, also 300 gramophones and 27 moving picture machines.

National Council, Young Men's Christian Association

Headquarters: 120 Bay Street, Toronto

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

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