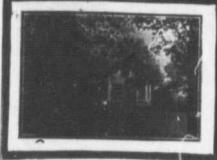


Eighth Annual Farm Improvement Number

FARM AND DAIRY

& RURAL HOME



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE



Peterboro, Ont., May 4, 1916

Dairy and Cold Storage
Exhib. Comm. Dec. 10
1917



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The road in front of Mr. Chas. Baird's farm in Western Ontario.

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May Echo Sylvia, One of the Greatest of Her Breed.

This great Canadian cow has now made world's records as a four, six and seven-year-old. Her recent 7-day record of 54 1/2 lbs. milk and 41 lbs. of butter makes her the first 40 pound cow of the Dominion. May Echo Sylvia is still in great form for similar work in the future at Avondale Farm, Brookville, Ont.

Features of Interest on a Waterloo Co. Farm

FEW things give us more pleasure than a chat with a live, progressive farmer. Such a man is Irvin C. Hallman, of Waterloo Co., Ont. Although our conversation during our visit with Mr. Hallman was limited chiefly to the subject of electric power, we did find a few minutes to look through the buildings and make note of a couple of other features of the Hallman farm.

One piece of apparatus on which Mr. Hallman places much value, and which is not generally found on the farm, is a set of live stock scales. These scales with a five-ton capacity are used chiefly for weighing cattle, of which Mr. Hallman fattens a car load or more each year.

"We weigh the cattle that we are feeding every month," said Mr. Hallman. "It makes the feeding operation more interesting and at the same time more intelligent. It doesn't take us three or four months to find out that we are feeding at a loss when we have scales on hand to show us our mistake. The use of the scales is also a great satisfaction in selling. Many people are always harboring the belief that they are being held up by the dealers. We can't be cheated, however, when our eyes are open. And the scale doesn't represent much of an investment. I got it second hand for \$80.

Cement Construction Favored.

Another feature of the Hallman farm that is sure to attract the attention of the visitor is the large use that has been made of cement in the building operations. As we left the house, we walked to the barns on a cement sidewalk, which never gets muddy and is valued particularly by Mrs. Hallman. At the end of a drive shed is a circular milk and well house, looking like a sared off silo. In it the milk is cooled by cold running water.

In the basement of the big barn, 80 feet square, not a bit of woodwork reaches to within several feet of the floor. The partitions between the cattle and the mangers are of the same material as the floor—cement. Even the continuous water trough, which runs in front of all the cattle, is of reinforced concrete. Outside in the barnyard there is a strip of cem-

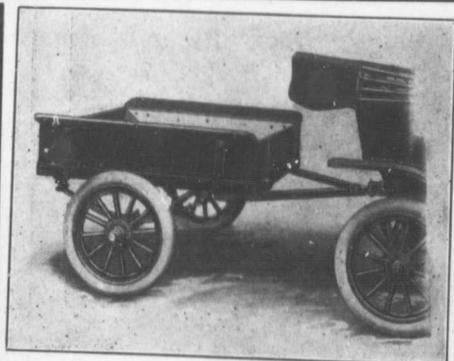
ent paving next the barn. Lastly, there is a big monolithic concrete silo "at first," remarked Mr. Hallman, "and farmed for ten years without one. But paw! it would have paid me to have borrowed money to put it up right at the start off. I couldn't begin to feed all of my stock now without the silo."

Mr. Irvin Hallman, unlike his brother, A. C. Hallman, who lives several miles away at Breslau, is not a dairyman. He is more of a dairyman, however, than he was a few years ago. When he visited him he was milking 12 cows which averaged 125 a month the year round. "The milk man comes right to the farm and pays 16 cents a gallon as a flat rate to admit that the dairy part of his business is profitable, though it contributes but a small part to the income of the big 212-acre farm.



A Concrete Milk House.

"Built like a silo," is the milk house on the farm of Irvin Hallman, Waterloo Co., Ont. Even the roof is of cement. Mr. Hallman appears in the illustration. —Photo by an Editor of Farm and Dairy.



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

VOL. XXXV.

PETERBORO, ONT., MAY 4, 1916

No. 17

At Home With A Veteran Institute Lecturer

W. C. Shearer of Oxford County Practices As He Preaches

W. C. SHEARER has been telling Ontario farmers how to feed cows, raise pigs and grow crops for so many years that he has almost lost track of the number himself. He was one of the pioneer lecturers of the Ontario Farmers' Institute, and he is still in the harness. He is still one of the most popular men on the Institute list; but not an orator or classic speaker, understand, but a practical appearing man with a very practical story. He has a way of talking about crop rotations, balanced rations, and so on and so forth, that gives his hearers the impression that he actually does just those things at home and has done them so successfully that he can afford to talk about it. I often wondered if he did. I had followed one particularly impressive and forcible Institute speaker right to his own farm, in that same good county of Oxford, and found him a very indifferent farmer as compared with some of his neighbors who never made any pretensions to superiority and never "talked out in meekness." Perhaps this man Shearer comes in the same class, I thought.

Then came the first Prize Farm Competition, conducted by Farm and Dairy. W. C. Shearer was one of the first to enter his 100 acres. That looked as if he at least thought that he had a good farm at home. Then came the placing of awards. Spruce Lodge, as Mr. Shearer calls his place, didn't get first placing, but the Judges reported that they had found a good farm and a good farmer. Early last spring I went up to Bright to see Spruce Lodge for myself, and have a chat with its proprietor. As a result of my visit, I stand prepared to endorse Mr. Shearer as one of the best farmers of the good old county of Oxford, and an Institute speaker who practices as he preaches.

Diversified Farming Followed.

The subject of this sketch is most generally known as a dairyman. Really he is a believer in diversification and practices as he believes. There is too much of the shrewd Scotchman in Mr. Shearer to allow him to put all his eggs in one basket, even when that basket represents such a dependable line as dairying. Cows, swine, hens and cash crops, all contribute to the income, but the greatest of these is dairying. It has been the main line from the day that Mr. Shearer assumed the management of the farm over 30 years ago.

The herd originally purchased by Mr. Shearer was mostly Durham grades, about the only class of cattle that could be gotten in Oxford county at that time. They were given a short trial, but did not come up to expectations, and Mr. Shearer started out to find another breed that would answer a little better as milking machines. Dairy butter was their specialty at that time and the Jersey breed was finally selected. A journey was made to Brampton and some grade females and a pure-bred Jersey bull selected. Some of the

F. E. ELLIS, B.S.A., Editor.

original Durhams were retained in the herd, but soon all were of the Jersey color. In fact, some of the half-bred Jersey and Durham cows proved themselves the most profitable producers in the herd. For twelve years Mrs. Shearer made Jersey cream into Jersey butter, but the work proving to arduous, Mr. Shearer decided to ship the milk to the nearby cheese factory. A sale was

called and the Jerseys disposed of at an average price of \$60, a high figure for those days.

Mr. Shearer then entered on a second lap as a dairyman. He purchased a herd of Holstein cows at \$50 to \$55 each, and, of course, a pure-bred Holstein bull. The last sire that he owned was a son of Sir Admiral Ormsby. From this wall bred animal there is now a splendid lot of heifers at Spruce Lodge.

Mr. Shearer has now entered on his third lap as a dairyman. In order to give his Sir Admiral Ormsby stock full swing on the farm, he called a sale last February and sold off 17 of his cows for \$1,700. At the time of my visit, therefore, only a few cows were being milked, but in a few months the stables will again be full of milk cows, and the best bred herd that Mr. Shearer has yet had. Some of the dams of the present milk herd have gone over 70 lbs. of milk a day. The 18 to 20 cows that were milked last year, including the two-year-olds, averaged \$70 each in one cheese factory season.

It is notable that scarcely a female has been purchased for this herd since the original start was made in Holsteins over 15 years ago. First-class pure-bred sires have been depended upon to steadily improve the milk making qualities of the females. Mr. Shearer regards this as the safe and sane path for the man who wants milk and does not intend to make a stock breeding a specialty. In fact, one strain in Mr. Shearer's herd has been in the family for 66 years. These animals are descended from his mother's marriage cow, a common wedding gift among the old Scotch people. "I will keep at least a few of that strain as long as I farm," remarked Mr. Shearer.

Feeding the Herd.

The feeding methods followed at Spruce Lodge are as safe and sane and capable of as-wide application as are the breeding methods. Mr. Shearer is not a heavy feeder, but he is a good feeder. The roughage consists of ensilage principally, with hay at noon. The grain feed is largely home-grown chop with a small mixture of middlings, oil cake and cotton seed. Cotton seed was fed for the first time two winters ago, because of its exceptionally low price at that time, as compared with other feeding stuffs, and Mr. Shearer found it very satisfactory for making milk. One pound of the mixture to every four or five pounds of milk produced is the rule. "We feed mangels, one pair twice a day," Mr. Shearer told me. "I believe it well to feed some roots even when one has ensilage. They seem to keep the cows in excellent condition."

Silage is fed for 11 months in the year. Mr. Shearer does not see the logic of working hard during the summer months in order that the cattle may be liberally fed during the winter, while during those same summer months the cows may be almost starving on dry pasture just



The Boy With the Hoe

The boy with the hoe
Is all freckles and tan,
Yet eager and willing
To do what he can.
At dawn of the day
He is up and astir,
No play is too tempting
His work to defer;
And gaily he whistles
A roiling tune
And deems time precious
Till comes the glad noon.

The boy with the hoe
Is the friend of the soil,
No comrade can tempt him
His record to spoil,
A prince though in patches,
His scepter the hoe,
Each hill he is doing
But shortens the row.
He laughs though awfully
And reckons the fun
That he will be sharing
When duties are done.

The boy with the hoe
Has a will to endure,
His heart is so kind
And his thoughts are all pure,
For him the birds warble
And flowers sweetly bloom,
While breezes are wafting
To him their perfume;
The azure of heaven
Bends o'er him above,
The boy with the hoe
Is the boy that we love.

—Ruth Raymond.

The Steel Barn—Is It Economical?

A Farmer and Breeder Who Built One Last Summer Says That It Is—By R. D. Colquette



Grade Holstein Profit Makers in the stable of W. C. Shearer, Oxford Co., Ont.

over the fence. The summer silo has solved the summer feeding problem. This silo is 12 x 36 constructed of staves, and has been up 16 years. When its usefulness is over, Mr. Shearer is planning to make even greater provision for summer feeding by erecting a silo nine to 10 feet in diameter, and 35 to 40 feet high. The winter silo, like most of the silos erected when the silo was a new thing in this country, is built inside the barn, 9 x 18 feet on the floor, and 28 feet high. It is double boarded with hemlock and tar paper between. This silo has been up 23 years. Last year Mr. Shearer had it lathed and plastered inside and now it looks good for another 23 years.

Summer Silo 15 Years.

"I have been feeding summer silage for 15 years," said Mr. Shearer. "We fill the smaller silo in half a day with 60 tons of ensilage. The next day we fill the inside silo with 115 to 120 tons. We plan to grow enough corn to have 15 or 20 shecks left over for fall feeding. We do not let the cows run out until late in the fall, when the freezing of the ground compels stabling. They are never out after the middle of November, and we believe that the manure saved will pay for the labor of extra choring.

"It was at one time our practice to pasture the cows too early in the spring," continued Mr. Shearer. "This year they did not go out until the corn was done in the big silo, about the first of June."

I will mention the Spruce Lodge stables only briefly. On the day of my visit, with all the cattle still in the stable, both the stable and the cows were as clean as if Mr. Shearer were endeavoring to produce certified milk, instead of cheese factory milk. For instance, the floors were covered with hard plaster to keep down odors and incidentally improve the manure. Lifter carriers facilitated the cleaning operation. There were individual water bowls in front of each cow. As a result of these precautions and his breeding and feeding methods, Mr. Shearer has a herd, as I mentioned before, that in 1914, including a considerable number of two-year-olds, averaged 470 in a cheese factory season of nine months, in addition to which we must add the money received for cream during the remaining three months and young stock that will sell for the highest prices paid for grades.

Spruce Lodge Farm is a square hundred of what Mr. Shearer truthfully describes as "the best laid out of doors," that is, it is a good strong

(Concluded on page 12)

HAS the time arrived when sheet steel and structural iron can successfully compete with timber, lumber and shingles in the construction of barns and stables? That is the question that many farmers, who are faced with the problem of building new barns in the near future, are asking themselves. It is the question that Chas. E. Moore, of Peterboro Co., Ont., was asking himself at this time last year. He decided in favor of the iron barn, with the result that he had one built and has now had a winner's experience with it.

It was with the idea of discovering Mr. Moore's opinion of his new barn after using it for one winter, that I drove out to his farm a few days ago. As soon as I turned in the gate, I saw evidence that I was on the farm of a progressive and enterprising farmer. A place in the lane where a threshing engine had broken through pretty badly late last fall, had already been repaired this spring. When I drove up to the barn I found that the owner was busily engaged getting up his summer's wood supply. Just then he was back in the lush for a load, and during his absence I proceeded to investigate the new barn and to contrast it with the "post and girt" structure that we used to build when I was apprenticed to a barn farmer in Grey county some years ago. But I had not been investigating very long when Mr. Moore returned, and I at once began to bombard him with questions regarding his venture.

"Why did I build a steel barn in preference to a timber one?" said he. "Well, one reason was that I thought by building a steel barn I could avoid some of the fire risk. Taking into account the danger from lightning, from threshing and silo filling and from the possibility of the barn catching from other burning buildings, or the chimney, I thought that the extra immunity given by the iron-clad barn was worth considering. Then the price of timber, lumber, shingles and all building material is now so high that I am convinced that the iron barn is quite as economical to construct as the old-fashioned kind. There is also a great economy of labor from the farmer's standpoint. The company who built this barn supplied everything connected with the superstructure, as well as the labor to put it up. The contract included doors, windows, ventilating shafts, and everything complete except the stables, and all we had to do was to board the men. This is a great economy of time for the busy farmer. Another consideration was the advantage that the steel barn has in that there are no timbers in the way. Come up with me into the hay mow and see for yourself."

A survey of the broad, open expense with no obstructions whatever, to interfere with the work at harvest time or during threshing, was so convincing that I determined to get a photograph of the interior and so climbed up to the plate at the north-west corner and secured a photo, but is it not good enough for reproduction.

Material in Old Barns Utilized.

Coming outside to more carefully observe the general appearance of the barn, I noticed the remains of an old foundation and also a neat pile of

old barn timbers. Upon asking what these meant I was informed that near the site of the new barn there were formerly two old ones, one 80 x 50 feet on a foundation, and another 25 x 80 feet, which sat on the surface of the ground, the two coming together in the form of an "L." "The old barns were all right in their day," said Mr. Moore, "but we need'd better ones, and we also need'd more and better stabling. Besides, the old yard was low, wet and muddy, and the stables were dark and unsanitary. The company used a great deal of the material from the old barns in building the new one. All the rough lumber for interior sheeting, and also all sills and sleepers required, came from the old barn. They didn't like the idea of using this old material, preferring to use new stuff, probably because the more they would have to supply, the greater their profit would be, and also because new joist would look much neater than this old timber for sleepers. I insisted, however, that they use them up, and they are quite as serviceable, if not quite so good in appearance, as new planking. The company used up practically all of the material in the old



Steel Clad and Steel Trussed, and Proving Satisfactory. The barn illustrated above was built a year ago by Mr. C. E. Moore, Peterboro Co., Ont. In the article adjoining Mr. Moore gives his opinion of the economy and efficiency of this up-to-date structure.

—Photo by an editor of Farm and Dairy.

barns that was in good condition, and whatever they left will be used for firewood."

A Barn Without a Basement.

The new barn, which is 44 x 70 feet, has no basement. The ground slopes about three feet in the width of the building, and to get a level foundation for the superstructure, a cement wall was built that is about a foot above the ground at the high corner and about four feet high at the lowest corner. One unique feature about the stabling is that each division is on a level of its own. For instance, the floor of the box stall at the corner where the ground level is the lowest is about three and a half feet below the top of the wall. The floor of the other large box stall is about a foot and a half higher than this, while the floor of the main stable is about on a level with the threshing and granary floor. No excavating was done in preparing the foundation, but instead the floors were levelled up by putting in stone. The stabling has not been completed as yet. "Last year was a very backward one for building," explained Mr. Moore, "and operations were delayed considerably, so that I did not get the stabling finished last fall. However, I took advantage of the slack winter season to put these stones in, with the result that everything is now levelled up ready for the cement."

Since there is no basement, the general level of the ceiling of the stables is about eight

(Concluded on page 15)

HIGH gate of single his rusty cent months, a well-blouse. Along seemingly white over dust. Fought even wind.

On the sat two The older and forth, every mon-structed th-

"Mother! I shall The old- a very n- pulled the nose in- and th- deny ably

"Mother, the grassh discouragin- squeaky of. It seems to wrong now. Neither w- relic of th- daughter, I- poor thing her rockin-

The time was that farming his way. Farm thought it because of young wife lay. He things sure "Now, m- samed you- born with a- ness. "Wh- Old Mrs. listen, and



These old buildings, with good repairs and a liberal use of white paint with green trimmings, have been made attractive and distinctive.

Two Gallons of Paint And What Two Women Did for a Man and a Farm

By A. E. HASWELL in Kinball's Dairy Farmer

HIGH in the ragged old cottonwood by the gate, a locust shrilled his endless frenzy of sound. The gate itself swayed on its single hinge with a maddening irregularity of rusty complaint. The windmill, unrolled for months, creaked dolefully over the dilapidated well-house.

Along the weedy fences the grass-hoppers, seemingly by millions, trilled that peculiar undertone which one hears only in the late summer. Over dusty roads the shimmering heat waves fought every instant with a dawdling, light, hot wind.

On the stoop of a fine old house, gone neglected, sat two women, the one old the other young. The older woman rocked back and forth, back and forth, and the hickory bark chair protested at every move for the lady was more solidly constructed than the chair.

"Mother!" shrieked the younger woman, "stop it! I shall go crazy if you don't stop at once!"

The older woman stopped—at once—and with a very natural surprise. She straightened up, pulled the old specs down to the bridge of her nose and with considerable exasperation glared through the lenses to see what on earth so suddenly ailed her daughter-in-law.

"Mother, I'm sorry, but the locust, the windmill, the grasshoppers, and even the gate are all so discouraging, and the one sound more of that squeaky old rocker was more than I could stand. It seems to me that everything on the place goes wrong nowadays with me."

"Rather with an air of relief the older woman, relief of the late Joel Greenway, replied, "Well daughter, I did think you had gone crazy—you poor thing, it must be the heat"—and resumed her rocking.

The time was some two years ago. The house was that belonging to young Sam Greenway, farmer his father's neglected acres in his father's way. Farming under protest because he hadn't thought it out properly; farming a losing game because of a real discouragement that even his young wife could hardly understand. Sam wasn't lazy. He wasn't without good schooling, but things sure were going wrong.

"Now, mother, you must stop and listen," resumed young Sam's wife, who was Janet Semple, born with all the Semple love of order and neatness. "What this farm needs is paint!"

Old Mrs. Greenway added look to her stop and listen, and the look said plain as words, "She has

gone crazy."

"No, I've not," said Janet in direct answer to the look, "not one bit. But the whole farm looks discouraging from house to hen coop. No wonder Sam's going back every month. What he needs is a coat of paint."

She broke merrily into laughter at the old woman's look of utter lack of understanding. And with the laugh every sound on the place seemed to change from its discouragement to a cheeriness, like the Cricket on the Hearth.

"Janet Semple, if you haven't lost your wit, I have," and the rocker, too, ceased its squeaking as again the old lady stiffened in her chair to lend dignity to the glare from her keen, old, blue eyes.

"Now, mother, don't get excited. I mean just this: You know how Sam feels in church with that old suit of his—well, that's just how this farm feels. And every one of us feels the same way because the farm does. You and I are going to buy this farm a new suit of clothes."

Abby Greenway wasn't slow if she was going on 62 and, then, her mother's second cousin was a Semple. But she had lapsed into the slack ways of Joel Greenway, and for years had scarcely

uttered a protest—Semple though she might be. But she had the idea—got it at once, and visions of a monster housecleaning brightened the tired old eyes behind the specs.

"Sam'll never spend the money," she said, and the light in the eyes dimmed. "Yes he will, mother. We'll make him—and he won't know it either."

This time it was old Mrs. Greenway's laugh that fairly startled the creaking windmill. There was a time when Abby Greenway was the merriest girl of them all and years of discouragement and widowhood hadn't made her entirely forget how to laugh.

"We'll put one over on Sammy, daughter." "Why, mother! where did you get that awful slang? I didn't think it of you." And another breeze of laughter—this time a duet—floated over the dusty front yard.

Long they sat planning how with their own very limited resources they might do the great thing needful.

But all we are permitted to hear is this remark of Janet's: "Anyhow those chickens are mine and I suppose the chicken house goes with them," and this of Mrs. Greenway, senior, "Good land, it's most supper time and not a thing started."

If Sam Greenway had an especially good supper that night it may or may not have had any con-

(Continued on page 8.)



A Quebec farm home that owes much to a couple of coats of white paint.

Why Not a Windbreak Around Farm Buildings?

Some Suggestions as to Varieties for Planting and Their Arrangement

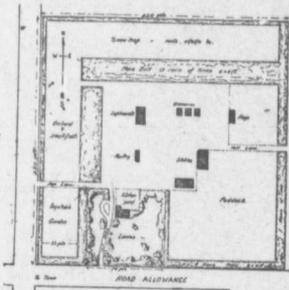
YEARS ago I visited an old friend of mine. By "old," I mean that our friendship was of long standing. He was young and progressive. At the time of my visit there was a windbreak three rows deep on the north and west side of the farm buildings, which had made a considerable growth, but had not then attained its maximum usefulness. I now have a letter from Jack, written just after one of the severest storms of the stormy month of March. Here is a paragraph from his letter:

"Well, old top, do you remember that bunch of Norway spruce that spread their protecting wings around a couple of sides of our buildings? You may remember that you thought it took up too much good ground. If I recollect your remarks aright, you approved of dad's windbreak idea, but thought one row of trees would have been enough. Well, you've got another guess coming, old boy. That plantation has now reached maturity. It is a dense, almost impenetrable mass of perennial green foliage. Last night we had the greatest storm this winter. The roads are all blocked, the phone lines down, and it is still storming like a good one. I visited the Kellys next door this morning; had to go on snowshoes, and had a hard time to get there at that. But say, old man, it's a comfort to live inside our windbreak. Why, we hardly knew there was a storm blowing. We were as warm and snug as bugs in a rug. We go around doing chores between house, stable, hen houses and pigery, without any particular discomfort. Waste of land! Why, we have had dividends on the land occupied by that windbreak several times over in this month alone."

That's a pretty emphatic paragraph, and Jack made his point clear enough. I myself have lived in the country the most of my natural life, and I know that any rural district is a cold bleak place in the winter time. We can't control the bleakness of country roads, but we can make provision for comfort around our own buildings, and many "Jacks" all over the country have done so. A good windbreak not only means more comfort outside at chore time, but warmer buildings, less fuel consumed, proper protection for the stock when exercising, and very, very decidedly more beautiful farm homes. I made a mistake just above. It was Jack's father that planted the windbreak, and Jack is reaping the benefit. I sometimes feel that the men of the passing generation were greater tree planters than we are.

Tree Planting on the Prairies.

The need of windbreaks on the treeless prairies is universally recognized, and I believe that in time, surrounding belts and strips across the farm from north to south will come to be largely used in Southern Alberta and Western Saskatchewan. Besides affording protection from soil drift, and beautifying the homes, they will help to retain the snow on the ground in winter and also to prevent the excessive drain on the moisture in summer, resulting from the blowing of the hot Chinook winds. Such plantations will not take up an enormous amount of land. A strip four rods wide around all sides of a quarter section, takes up only 16 acres, and three strips, of equal width, one on the extreme west side, and others at



Good shelter belt planting.

Interior. The experts in connection with this Branch advise strongly against trying to grow single trees or single rows in the most of the prairie sections. Rainfall is deficient as compared with Ontario and the East, and the young trees have to be given cultivation to conserve moisture. Farmers cannot afford to spend so much time on work so unproductive, and belts of 20 yards and upwards are far easier to maintain, afford a much better shelter, and in course of time the thinnings will furnish a better quality of firewood. For the first three or four years these belts may cost a little more for cultivation because of their larger area, but the ultimate

equal distances apart, will amount to only 2½ acres. Not a great percentage to be under trees and only about enough to supply thinnings sufficient to provide for the needs of the farm for its firewood, posts and poles. And what a difference it would make in those prairie homes. I am never able to think of a country house as a home until it has trees around it.

While I am talking about tree planting on the prairies, I might pass on some suggestions which I have gotten from the Forestry Branch of the Department of the Interior. The experts in connection with this Branch advise strongly against trying to grow single trees or single rows in the most of the prairie sections. Rainfall is deficient as compared with Ontario and the East, and the young trees have to be given cultivation to conserve moisture. Farmers cannot afford to spend so much time on work so unproductive, and belts of 20 yards and upwards are far easier to maintain, afford a much better shelter, and in course of time the thinnings will furnish a better quality of firewood. For the first three or four years these belts may cost a little more for cultivation because of their larger area, but the ultimate

results will be much better than those obtained from narrower strips.

Varieties for Eastern Windbreaks.

Here in the East trees will grow in spite of our efforts to kill them, and the growing of a windbreak is an easy matter. It is simply a case of planting the trees carefully to give them a start, and then keeping the stock away. The first windbreak that I helped to plant when I was a very small boy consisted of just one row of trees, and while to-day it does not make the most efficient windbreak, it is still a wonderful protection. We went to the bush and dug out small spruce trees and set them to the west of the buildings. We took spruce because evergreen trees are always to be preferred to deciduous trees in making a windbreak. Deciduous trees are perhaps more beautiful in summer, but for all the year service the evergreen is in a class by itself. Among the evergreens that I have seen in use as windbreaks are the Norway spruce, white spruce, red spruce, white cedar and white Scotch and Jack pine. These trees are recommended by Mr. R. H. Campbell, of the Forestry Branch, and he discusses their merits in a recent letter as follows:

"The Norway spruce, a native of Europe, is probably one of the best trees for windbreak purposes. It is hardy, adapts itself readily to all conditions, rapid in growth, and has many numerous, pendulous branchlets and dense foliage which give protection summer and winter. It can be sheared and grown as a foliage if desired. The white and red spruces are also good trees for shelter belts, but slower in growth and not so graceful in form.

"The white pine is a more rapid grower than the other pines, and, on account of its denser foliage, a better tree for the shelter belt than the Scotch or Jack pines. The two latter trees, however, are better suited to cold, dry sandy

(Concluded on page 14.)

A New Home From the Old One

A Little Money and Much Ingenuity Made the Transformation—By "Jean"

THREE years ago we moved on to the old farm and John's parents moved into the little home with its half-acre of garden and lawn a mile or so nearer the village; an ideal place for the old people to retire to. And we were up against a problem: Should we go into debt to build a new home or repair the old one?

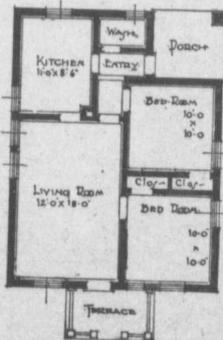
The old home was good in its way. It had a commodious cellar underneath and the foundation walls were heavy and substantial. John said that the frame was built to last forever, of big square timbers securely morticed and braced. I was prepared to admit that, as in the case of many old homes, the general lines of the house were good. Better, in fact, than the lines of most of the new houses that are being built in the country. It was low and broad in the ground and just seemed to fit into its surroundings.

And there the good points of the old home ended. It had been built some 40 years before, and had never received so much as a coat of paint. The weather boarding had dried out and cracked, and in many places was falling off. On the roof there were at least three layers of singling, and it leaked badly. The verandah had rotted out at the foundations, and there was a sick looking sag to its roof. Inside, the old house was hope-

less, or seemingly so. I am sure that no woman had a say in its layout. Small windows and few of them made the inside dark and gloomy. For heating there were no less than four coal stoves.

A Hard Looking Prospect.

The layout was the worst of the old house. I will not tell all about its disabilities, but just mention one point. To get from the kitchen to the pump, one had a choice of going out the kitchen door and walking all around the house to the pump, or of carrying the water through the front door, and the front living rooms on the more direct route to the pump. The plaster was coming down all over, due to the leaks in the roof, and there was not even a sink in the kitchen. To add to all its other disabilities, the house was, to quote John, "as cold as a barn." To make such a house into the home that John and I had always dreamed of, seemed impossible. At one time we had drawn sketches of our ideal home, and we now looked over them longingly. Surely we could never make the old home look like our ideal. We would have to build anew. Then the question of cost always came to the fore. The question of where we would live while building a new home on the same site as the old one, was also a factor in deciding us in favor of renovating the old house. Now we



FLOOR PLAN.

A convenient small home on one floor.

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are glad of our decision. While we "camped" inside the house, John tackled the outside with vigor. A good carpenter was hired by the day, and John worked with him most of the time. First, the old shingles were scaled off the roof, incidentally giving us an excellent supply of kindling for the rest of our natural life, the sheeting underneath was nailed down solidly, where the original nailing had rusted away, and the roof covered with building paper, lapped half. Then came British Columbia cedar shingles, which had been dipped to stain them a nice moss green.

The sides had been originally covered with weather boarding half an inch thick, each board lapping one inch over the board beneath it. This old boarding was all scaled off, and then nailed

on again flat. Over this came building paper again lapped half, and on top of this new milled siding, dressing out of timber cut in our own woods. Great care was taken to carry the building paper around every corner without a break, tight in to every window and door, and to connect it in properly at the eaves, so that no wind could get in anywhere. Before the siding was put on, big new windows, three sections wide, were put on the front and west sides of the house, and in the other rooms downstairs, the windows that had been removed from the front house were set up alongside the windows that were already there, doubling the lighting space. A big wide colonial verandah made on plain, simple lines, and without a single bit of expensive mill work in it, was

added to the front of the house, and a small porch at the back. The foundations and floors of both of these verandahs are of cement; this for economy rather than appearance. I mentioned that the roof was with a moss green. The siding was painted white with the window and door trim, base-board and eaves a rich green. The whole effect is rich and pleasing.

The Interior Renovated.

I did the planning for the inside of the home and once the rough carpentering was finished, most of the work. In the front of the old house a small parlor and a small sitting room were combined into one large pleasant living room, running right across the front of the house

(Concluded on page 12.)

How We Have Used Cement In Our Farm Improvements

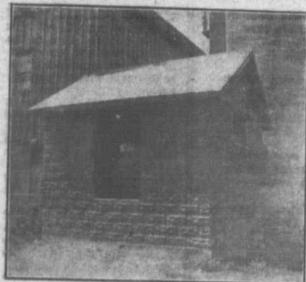
Its Permanency Makes It Economical For All Building Operations

E. LAIDLAW & SONS, ELGIN CO., ONT.

WE are living in what can truly be called a cement age, although concrete work on the farm is practically in its infancy. Cement has so many uses awaiting it that one scarcely knows where to start first.

One important use is in the construction of basement barns. We have on our farm both the solid concrete walls and those built of the hollow concrete brick, made with the concrete brick moulds that are advertised in the different agricultural papers. They both have their advantages. We give our experience for the benefit of Farm and Dairy readers who can then judge for themselves.

The solid concrete makes by far the stronger wall. Its construction requires nothing but shovels, a level, plenty of back muscle and a little common sense. It is not, however, as dry a wall as the hollow brick. The brick are weaker than the solid wall because of having to be mixed dry so that they will stand alone when taken from the mould. They make a nice looking wall when put up with red mortar and for a horse barn we would advise using them in preference to the solid wall. As to material required, we do not think there is much difference. With the brick, the coarse gravel has to be sifted out and the part that is left made richer with cement. When the bricks are made, however, they are more easily put up than the solid wall, as they do not require the plank and scantling forms. A point we might mention in constructing a wall is to place a num-



Our Substantial Milkhouse.

ber of rings here and there, both inside and outside the barn. They are very handy for tying, because, where everything is concrete, the posts are scarce.

The Concrete Silo.

Another very important use of cement is the building of silos. We have had cement silos for the past 17 years, and can thoroughly recommend them if properly built. We built the first silo in this part of the country. The first was square with bevel corners, but the last one, which is the best, is round. It is much easier to build, and takes a lot less material than the square ones. It would not pay anyone to buy the steel rings just to build one silo. In this locality, for instance, there are men who have them and make a busi-

ness of building silos. After the silo is built, and before the staging is taken down, it should be whitewashed with cement, both inside and out, so as to keep out both air and water. The cement wash also keeps the concrete from absorbing the moisture from the ensilage.

The main thing in building a concrete silo is to give it a good foundation. It should be down to good, solid ground, and then have a foundation two feet thick. It should also be reinforced with iron rods. We place a rod in the centre of the wall at the top and bottom of every door. A silo built in this way makes cement a very useful material on the farm for the preservation of the corn crop.

The Concrete Barnyard.

We appreciate very much the use of cement in the making of a concrete barnyard. The land around our buildings is level, hence our stock was always in the mud for a while during the spring. Formerly, when we cleaned out the yard, we never knew when we reached bottom, but since we put in the concrete it is very different. The stock always have a solid footing, and when we now clean out the yard it is a great satisfaction to have a good solid bottom.

We built the yard in sections five feet square, so that if it heaves with the frost, it will not crack. We mixed the concrete seven parts gravel to one part cement, and gave it a rough finish, so that the stock does not slip on it. We think the manure we save will soon pay for the outlay. We built our yard with a slope towards one corner, so in the spring, when the snow is melting, we keep the outside of the yard clean and the water runs off. Any concrete floor needs a foundation around the outside deep enough so prevent water from getting a start under it.

Concrete Walks.

We have concrete walks to all the buildings, so we can go from the house to any of them without getting in the mud, no matter how bad the weather may be. This is a convenience anyone can have, as it doesn't cost much. The walks are made in sections to prevent the frost from cracking them.

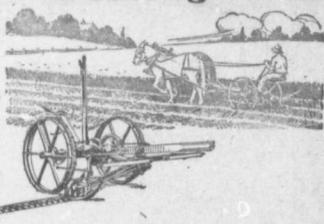
The main thing in constructing concrete work of any kind is to mix it thoroughly. After it is in place, the more it is tamped the better will be the job. Where a driveway crosses a wall, the walk is bevelled down in the ground on the sides to prevent the edges chipping off. We now have concrete walls and floors under every outbuilding.

(Concluded on page 16.)



In all Our Building Operations Cement has Played a Part.

Deering



Get All Your Hay Profit

Once more it is time to prepare for haying. Are your mowers, rakes, side delivery rakes and hay loaders in good condition, ready to get in the whole crop and make money for you in the hay fields? If not, what does your equipment need to make it ready—repairs or new machines?

Get your repair order in early and specify genuine Deering repairs for your Deering machines. Deering repairs are exactly the same as new pieces, made of the same material, from the same pattern. Use them if you want your machines to work like new.

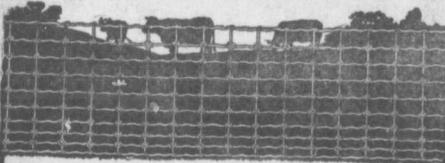
If you need new machines, see the Deering local agent before you buy. You know the Deering name and reputation. Step in and see the Deering mower that cuts clean in all kinds of fields and crops. Ask the agent to show you the new all-steel side delivery rakes and the all-steel hay loaders that go with the Deering line.

Deering machines, this year, are better than ever before. Don't buy until you have seen them, or have received full information from us. Write us at the nearest branch house.

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It's service, not surface, that counts in Wire Fencing

Fences made of soft wire may look all right, but they are liable to sag all wrong when it comes to keeping strong, healthy, active live stock within bounds.

THERE is, however, one fence that you can count on for satisfactory service year in and year out, and that is "Ideal." Made of large gauge No. 9 hard steel wire, heavily galvanized, with the verticals and horizontals clamped together with a patent lock that cannot slip. "Ideal" fence is bull-strong, hog-tight, horse-high—a real fence, every foot of it.

Ideal Fence

The quality of the wire from top to bottom in "Ideal" Fence is all the same gauge, hard drawn steel wire, tough, live, springy, heavy wire that will be standing up doing splendid service years from now. This is a point you have to watch mighty carefully. Some fences have 9-gauge horizontals, but after, weaker wire for the stays and locks. Naturally this takes something off the price, and it takes something off the strength and durability too, far more than the difference in price. You are going to fence for a lifetime, then fence with "Ideal" and get a lifetime's service.

We make a fence for every purpose. Write for a copy of our catalogue which describes them all.

The McGregor-Banwell Fence Co., Limited, Walkerville, Ontario.

23

Two Gallons of Paint

(Continued from page 5.)

nection with his wife's request, that he take her into town next day. But at any rate it was so arranged, and she insisted that Abby Greenway, who used to laugh and hadn't forgotten how, go also. "Sammy," who was about to have one "put over on him," hesitated and the three left in the cool of the morning for a brief trip to town.

Sam had nothing special to attend to and it was very easy for him to drift into conversation with the group in front of the store and easter side by Abby & Janet, Conspirators, to steal away without his notice.

A couple of good sized baskets of eggs disappeared at the same time, and the last we saw of them was when they went through a store front which carried the words, "Drugs, Paints and Oils."

The baskets and the two conspirators came out of the door. The eggs do not again appear in this story. In the baskets reposed two gallon pails of mixed paint and a small package of brushes picked out for anxious debate with the clerk in the store.

"The game was one—soon it would be 'put over on Sammy,'" as his mother had said with a shrug so worthy of her still youthful heart.

Sam was detached from his cronies at the store and was so busily engaged in conversation that he nearly reached home before he thought of asking what they had bought in town.

"Oh, some yards of dress goods," his mother said and the son entirely missed the twinkle that shot by him into the eye of his wife.

"Chicken yards of dress goods," she said softly to herself and the twinkle flitted back from her eyes to Abby again. But Sam never heard. And he found that he had had a better time that morning than for a long while.

"Seems to me a trip to town does you and Mother a lot of good," he said.

And the woman who had not forgotten how to laugh, replied, "Sammy, you don't know how much good it has done"—and proved it by a real laugh in which Janet heartily and Sammy eventually joined, though Sam not in the least knew what the joke was. It was enough for him that his dear woman folks were happy.

Just as Sam was getting up from the dinner table the two shorts and two longs of the telephone bell called him to answer and he found that the cows had broken through the fence into Belknap's corn and Belknap, with more haste than patience, was calling for help.

As Sam grabbed his hat his mother fairly shouted to him, "Sam Greenway, you take a hammer and staples and wire with you when you go to get those cows, and you stay there till you get that fence fixed up. That's the second time!"

And Sammy answered meekly as he used to do when a boy: "Yes'm" and disappeared on the run.

"Daughter, I call that presence of mind," said Mrs. Greenway. "He won't be back till dark. Come on!" And Janet "came on" and came with brush and paint and long big apron and the two ladies disappeared, they, too, almost on the run, in the direction of the chicken yard.

The chicken house was old but its framing and covering has been honestly done and as Abby said: "Thank goodness, it's all here." And the two set to work, first striding the wall of white paint till thoroughly right. Then with vigorous strokes and a deal of laughing they proceeded to cover the hen house with a perfectly new and lovely coat of white paint. And they painted and painted till as the sun settled for his last look over the

Belknap's maples, the brushes were laid aside and two happy women with aching arms and shining eyes, inspected their afternoon's work and called it good.

If Sam Greenway's supper that night seemed to him especially sketchy and somewhat reminiscent of dinner he was too tired to complain for he had fixed that fence, and very soon he was glad to remark, "Well, I guess I'll fly up!" and flew.

Many a man has waked to a day that was so bracing him an astonishing jolt. It was not otherwise the next day with Sam Greenway. But he waked to find the place beside him vacant and to hear a blithe voice singing, "I've reached the fence, and very soon and wine, with all its riches, fresh mine."

"What's got into those two women and say, I feel better myself than I've felt for years." So Sam talked out with himself a little, he thought that had just reached him, and made haste with his clothes, for that remark of the night before, that sketchy supper of the night before, that certain fragrant, fragrant odors were floating upstairs to announce a real breakfast doing.

"Sam, you want to hurry with those chores, I'll have something good for your breakfast this morning." Thus spoke his wife so kindly that you couldn't blame Sam for catching her in his strong young arms and taking the kiss which she hadn't forgotten how to give.

Poor Sam! He no sooner set foot out doors than there caught his eye, and hold it too, a perfect jewel of a hen house, brave in its new suit of clothes, glistening in the clear morning light like Ellen's lile in a waste of water. But while as snow, new and smart as paint, could make it, it showed up the raggedness, the emptiness of the whole farm—very much as 'twas intended to do. Eagerly, through the kitchen window, two pair of eyes—green and blue—looked on the miracle in the morning light and wondered what Sam would be thinking and what doing.

But Sam kept steadily on to the barn, he did not post of the broken old fence, not a piece of machinery out in the weather like a junk yard, not a yard of the bare, shabby, unpainted barn; not one of the whole scrubby lot of four or five cows he was on the way to milk.

The chicken house entered deep in his soul and he knew that what his whole farming needed was a coat of paint.

The dry pastures and the scrubby four or five yielded the usual stony amount of milk. Not even the few minutes in Belknap's corn had helped any, and Sam rose from the last cow a fairly discouraged young farmer.

But again the chicken house, a new painted chicken house, filled his eye and with the sight came determination to start a "dress up" campaign of his own.

"I don't know how I will do it, but I will if I have to sell my shirt for it."

Not one word did he say to the women but washed and dressed quickly for town and then sat down to breakfast a bit late but keenly hungry.

His wife couldn't stand it any longer: "Sam! If you don't tell me what you think of it I'll be a.s." And "I'll shake you," cried his mother.

A slow grin spread over Sam's face as when you throw a stone into a little duck pond.

"You two put one over on me that time—why, what's the matter?" for both women first gaped and then

(Continued on page 16.)

Lightning Protection Through Metal Roofs

Such Roofs, Properly Grounded, Insure Safety and Reduce Insurance Rates—By W. E. Clark

THE loss to farm buildings by fire may be controlled to a large extent by exercising care, but in regard to the loss from lightning even the most careful family is liable to suffer from the destructive effects as the most careless one, providing his buildings are not protected against lightning.

In considering this subject the farmer will usually have in mind lightning rods as a protection, and while lightning rods have a value, metal roofing, properly applied, gives better protection from lightning, besides added protection against fire, sparks from the engine, etc., which might burn a wooden roof with a lightning rod on.

Lightning not only destroys property, but destroys life; and anyone having experienced, in the country, a heavy thunderstorm with its accompanying discharges of lightning, would certainly not regret a slight additional expenditure for the sake of immunity from the effects of lightning. The feeling of terror usually engendered in the minds of the family, conscious of their helplessness and unprotected condition, is more conducive to a high state of nervousness, with its accompanying physical break-down, than almost any other cause. As the spring comes on, this subject recurs more frequently, and in the hot summer days, with their heavy thunderstorms, lightning becomes a very constant source of dread and trouble.

What Lightning Is.

Very careful observation has finally established a fairly good understanding as to the operations of electricity and the methods of minimizing the effects of same; lightning is a discharge of a large amount of electricity in a very short space of time, and in whatever medium conducts it from the clouds to the earth suffers in the transmission, unless the medium is a first class conductor of electricity, and of sufficient size to take care of the full volume of the discharge. Trees, poles and buildings, on account of their height, generally act as conductors. In the case of buildings, an electrical discharge is generally accompanied by fire, and a severe fire in the midst of a thunderstorm brings to light about the most helpless condition of humanity.

Below is a quotation from an article by Prof. E. S. Keene, North Dakota, Agricultural College:

"Buildings with metal roofs that are properly connected with the earth are far better protectors from lightning than could be given by rods. Buildings that are completely covered with sheet metal and well connected with the earth are practically lightning-proof. Covered in this manner, buildings have been known to be repeatedly struck by lightning without the least damage. The ground connections may be made of metallic rods that extend well into the earth, and are securely fastened to the metallic roofing, on the buildings. It must be remembered that the ground connection is a positive necessity, and too much care cannot be exercised in its construction. The ground connection must be of considerable area, and extend well into the moist earth; a piece of galvanized iron pipe driven into the ground 7 or 8 feet makes a good 'ground'; large buildings should have two or more such 'grounds.'"

Connecting With The Earth.

In view of the above, the use of metal shingles or metal roofing, when put together, make practically a solid 'sheet of metal over the roof.' In connection with these, use metal eave-trenches and conductor pipes or down spouts, and drive the galvanized iron pipe into the ground near the termina-

tion of the conductor pipe. It is well to fasten the conductor pipe to the upper end of the galvanized iron "ground" by soldering or wiring them tightly together.

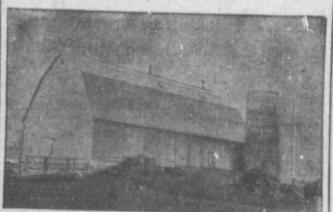
It is essential that the conductor pipe be properly maintained and not allowed to become unjointed, thus breaking up the continuous path over which the lightning may discharge into the ground.

Planning Improvements for 1916

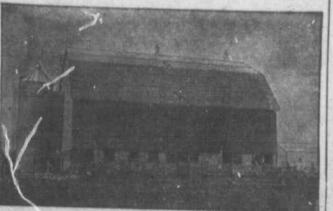
Ivan V. Tollot, York Co., Ont.

FARM improvement is, to me, the most interesting thing in life. To a real, whole-hearted farmer it brings contentment and satisfaction of a lasting character. Since starting farming for myself ten years ago, I have, year after year, been making improvements. Up to this year it has largely consisted of clearing up old fences, and building new wire ones, with cement posts, including anchor posts, which I made myself. I have also graded up the long lanes, which

YES, The Steel Truss Barn is Economical. C. E. Moore has found it so, and hundreds of others have found it so. Look at these fine barns—they are giving the best possible service to Canadian farmers. Send the Coupon below and let us tell you more about Steel Barns.



J. Baskerville, of R.R. 4, Thorndale, lost his old barn by fire. When he investigated the Steel Truss Barn he immediately placed his order for a building 40 ft. x 70 ft. with an eib 28 ft. x 22 ft. Mr. Baskerville is one of the best farmers in that district and is more than proud of his new barn.



John S. Lee, of Doon, lost his barns by fire. Two weeks later he was hauling hay into his new Steel Truss Barn. The building is 66 ft. x 70 ft. and has a double drive floor. Mr. Lee says he can turn the threshing around without taking it from the building and can go on with his work rain or shine.

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Grow Big Potatoes

No other crop brings such big profits as a successful potato crop. To ensure success requires a lot of cultivation. Take lots of time, too—unless you use O. K. Potato Machinery. Then it's easy to look after your crop. No excuse for failure. O. K. Machines will do each step of the work more efficiently and at a big saving of time and money.

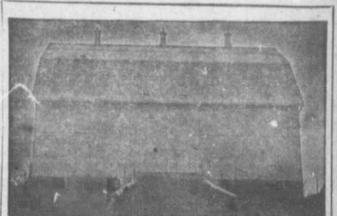
Get an O. K. Planter and give your crop a good send off. The O. K. drops the seed in finely worked soil and fertilizes and fills in on the same trip. Does the work in a quarter the time of hand planting and you get an even stand in rows that are easy to cultivate and harvest.

Write for FREE BOOK—"Money in Potatoes"—a complete manual, giving practical advice on every phase of potato growing.

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CANADA



A. J. Olde, of Union, has no fear of storms. He lives quite a distance from his Steel Truss Barn and while the storms rage outside he is content to know that his cattle and grains are protected from all elements.



Donald McIntyre, of Port Stanley, has a beautiful farm and he wants the finest and most up-to-date buildings. He says no one can beat him on barns, as his Steel Truss is the best that money can buy. In its setting of evergreens, Mr. McIntyre surely has a building to be proud of.

COUPON

The Metal Shingle & Siding Co., Limited, Preston, Ontario.

Please send me a copy of Mr. Dolph's free book on barn buildings.

Name

Address

R. R. No.

WHEN IS A GOOD OIL NOT GOOD ?

WHEN it's used in the wrong place. You cannot expect a heavy oil designed for use on a low-speed, high-power tractor to lubricate efficiently the finely adapted bearings of a high-speed, low-power tractor.

For every part of every machine there is one right oil—and it's worth money to you to find it.

The Imperial Oil Company makes a large number of farm lubricants—each one exactly suited for its particular purpose.

STANDARD GAS ENGINE OIL

Recommended by leading builders for all types of internal combustion engines, whether tractor or stationary, gasoline or kerosene. It keeps its body at high temperature, is practically free from carbon, and is absolutely uniform in quality.

PRAIRIE HARVESTER OIL

An excellent all-round lubricant for exposed bearings of harvesters and other farm machinery. Stays on the bearings; will not gum or corrode.

CAPITOL CYLINDER OIL

The most effective and economical lubricant for steam engine cylinders; proven superior in practical competition with other cylinder oils.

ELDORADO CASTOR OIL

A high-grade, thick-bodied oil for lubricating the loose bearings of farm machinery, sawmills and factory shafting.

THRESHER HARD OIL

Keeps the cool bearing *cool*. Does not depend on heat or friction to cause it to lubricate.

STEEL BARRELS—All our oils can be obtained in 28-gallon and 45-gallon steel barrels. These barrels save their cost by eliminating leakage. You use every drop you pay for. Clean and convenient.

If your lubricating problem gives you trouble, let us help you. Tell us the machine, the make, the part—and we will gladly give you the benefit of our experience in selecting the proper lubricant.

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Vibration is your enemy in a Cream Separator — it means imperfect skimming, hard turning, friction wear and noise. And with the amazing bowl spinning at 2,000 revolutions a minute, a rigid spindle inevitably means vibration the moment the bowl is the least bit out of balance. The "Superior" Separator is the only Separator on the market with the ball-and-socket spindle, ensuring absolute balance of the bowl under all conditions.

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You will understand the principle thoroughly, and realize its importance when you read the book of "Superior" Separator facts. The ball-and-socket spindle is only one of the patented, exclusive features of the "Superior" Separator described in this book. It is free. Write for it to-day now!

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The "SUPERIOR" Separator



At Home with a Veteran Institute Lecturer

(Continued from Page 4.)

free from stone and fairly level. The workable fields are all square, 13 acres in extent, and fenced with woven wire. A small creek runs through a part of the farm, which made it difficult to square some of the fields, but the problem was finally solved by sowing the creek banks with a good permanent pasture seed mixture and using the land for that purpose. This permanent pasture is near the barn, and therefore very convenient.

A five-year rotation is followed with mixed grain following the sod, then hoe crop followed by pure grain for seed, clover hay on the fourth year, and hay or pasture the fifth year. "With this rotation I can grow about all the feed I need," explained Mr. Shearer. "I buy considerable oil cake and cotton seed, but I sell a corresponding amount of seed grain." Last year the seed grain feature assumed unusual importance, and Mr. Shearer had 28 acres of O.A.C. No. 72 Oats, all of which will go for seed, except the small stuff, which will be fed.

The Draining.

On a farm such as this tile drains are almost a necessity. They are always profitable. "I did my tiling 26 years ago when I could get labor at \$1.25 a day and tile for \$10 a thousand," said Mr. Shearer. "I have been getting the benefit of those tiles ever since. My father had old stone drains. They were all right as long as there was a free run of water, but they rapidly filled with earth and then really acted as a spring in the field. Even yet we occasionally put in a tile when we see that it is needed."

"Then you consider tiling profitable," I remarked.

"If I were to get a new wet farm," Mr. Shearer declared earnestly, "tiling is the first thing on which I would

spend money. I have spent fully \$1,000 on tiles for this farm, and I have received dividends every year on every dollar of that thousand, as well as getting the principal back several times over."

Hogs are a specialty with Mr. Shearer, and he has been exceptionally successful with them. The poultry plant has been increased as investment and labor considered, his pure-bred Brown Leghorns have proven themselves the best money maker on the farm. These departments of Spruce Lodge will be left, however, for full mention in a future issue of Farm and Dairy. The orchard and garden supply the family with everything in the line of fruit and vegetables, and also add a nice little penny to the farm income.

The ideal on this farm is to make the farm contribute everything to the home that a farm can. It is to this end that Mr. and Mrs. Shearer have planned and worked for 30 years. They have now made the farm profitable in every respect, and Mrs. Shearer's central interest, the home, is now to be remodelled. When this last operation is complete they will have an attractive self-sustaining home, with which anyone might well be satisfied. Mr. Shearer expressed his ideal well when he said:

"A farmer is an independent man as lives. If he has a well-kept garden he can live as sumptuously as the millionaire, and he has this on the millionaire—that he has his food fresh, fresh gathered and at cost of production. Our system is a self-sustaining farm home. We have reached it, and we would not change places with any one in the country."

A good settlement for an Institute lecturer is it no better and it is better still to find the ideal so near realization.

A New Home from the Old One

(Continued from page 7.)

with large windows on three side and because of the southern exposure, sunlight all day long. There were still two rooms downstairs. One, a bedroom of ample proportions I left as such there are many times when a downstairs bedroom is a great convenience. The big, old fashioned kitchen I divided into two rooms. One part made a good sized dining room, the other and smaller part a convenient kitchen. The old summer kitchen I converted into a washroom, where the men can clean up before coming into the house.

I lavished more thought on the planning of that kitchen than on any other part of the house, or perhaps than all the rest of the house put together. I believe I got my ideas of the fundamental points of kitchen construction from a peep that I was once permitted to have into the kitchen of a dining car. There I saw the chef standing in one place, reaching every way and with hardly a move, preparing most appetizing meals for a large number of people. I re-built the kitchen of the old house on the same principle. On one side looking west, there was a double window. In front of it I have the sink and drain board. The stove is on the opposite side of the room, and the space between the sink and stove is just four feet, six inches. Both are close to the swing door leading into the dining room and the space between dining room and kitchen that is not occupied by the door, is filled with a dumb waiter on one side, which opens into both dining room and kitchen, and on the other a cupboard, which also opens into both rooms. The re-

maining wall also is almost taken up with a large cupboard. I have no pantry in my ideal kitchen. Cupboards are more satisfactory and everything is right there in the dining room, where I can get it with the least effort.

Inside Conveniences and Comforts.

Of course I have running water. As I mentioned before, the timbers of the old house were very heavy and after a little mental arithmetic, John decided that they were quite heavy enough to support a large soft water tank on the second floor. The water from the sewer troughs runs directly by gravity into this tank, and the running water at the sink and in the bathroom. Hard water we get from the small cottage pump at the sink. All of the running water is soft. The bathroom is what is left of a small bedroom after part of it had been taken up with the water tank.

We have just completed our third winter in our new old home, and I have been comfortably wintered. I have told how John made the outside weather tight. Inside I disposed of all the original coal heaters at a neighbor's sale, and realized half the price of a new and up-to-date hot air furnace. I was afraid at first that the pipes to the second floor would have to be exposed, marring the appearance of some of my rooms, and this almost led me to discard the new pipeless furnace. The local iron smith, however, assured me that he could push flat, oblong pipes through the partition with wall registers through the second floor, and this was finally done. Our new furnace heats the home better than any number of coal stoves and calls for less labor.

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In fact, so far as I am concerned, no labor at all, as John cares for the furnace.

Our lighting system consists of three mantle lamps and an equal number of old fashioned small-lamps. We expect to have hydro-electric within the next couple of years, and in our remodeling we wired the house for electricity. Otherwise we would have put in acetylene or the hollow wire gasoline systems, both of which we know to be good.

Before closing this little sketch, I must tell about the treatment of the old walls. They almost caused us to give up in despair, the plaster was loosened in so many places. A commercial preparation known as wall board solved the problem. We cut out the loose plaster in squares and tacked in wall board in its place, the joint being filled with putty and covered over with a strip of cotton papered on. The new partitions were built of this same material and when papered over, one would never know but that we had plastered walls. In the living and dining rooms I papered with olive green, the downstairs bedroom with a blue figured paper and the kitchen with sanitary paper to which we gave a coat of varnish. The woodwork all through downstairs was white enamel and upstairs painted.

Our old house thus renovated, in our eyes at least, is more beautiful than any of the new homes built in this locality. And what was the cost? I am almost afraid to mention it for fear of not being believed. It totalled just \$760 for all the help hired, all bathroom and furnace equipment, and other materials purchased, but not our own work. A new house as good would cost \$3,000 or more.

Too Much Money

By Chas. B. Driscoll.

TOM PAREM, a lawyer friend of mine, has gone to farming. Likes it, he says, and puff-blowing his own chest in the stables are. Now Tom is not a farmer boy. He never knew the healthy joy of freeing ears and nose and toe while hauling logs through drifted snow. In fact he never miffed a cow, and doesn't do it even now. He made ten million shilling bones, and all the other things he owns, by cheating hangers of their prey and taking all the loot for pay, so he doesn't miss a million mark when spent for pacing cows and such.

Tom never saw a farm, I guess, until he purchased "Brown's Distress." That's what the neighbors called the place he bought last fall. "Was a disgrace to hear the people hereabouts make sport of Parhm with rabid shouts for buying swamps and hills of sand with cash that might have bought him land.

My lawyer friend is cutting down the hills. He motors from town most every day with some new scheme for friction, or some dream of how to spend a lot of cash in raising camels on bran mash, or other plan more foolish still. He's built a mansion on one hill and moved two swamps a half a mile to make a lake. To see him smile while watching forty workmen do a job that might be done by two, you would suppose he'd lost his mind, or suddenly had been struck blind.

It's plain to see my friend Tom Parhm will not make money on his farm. A clever man, who made his roll by bleeding clumps and taking toll of every crook and thief and shark, has all at once become a mark, a boob, a simp, a very hick whose methods would make farm hands sick, and all because he has combined a farm, a fancy unfenced, and too much money. Sad mischance that led to such a circumstance.—Farm and Fireside.

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Production and Thrift

"GAIN or no gain the cause before the farmers of Canada is as clear, as it was last year—they must produce abundantly in order to meet the demands that may be made, and I believe this to be especially true in regard to live stock, the world's supply of which must be particularly affected in this vast struggle."—HON. MARTIN BURRELL, Minister of Agriculture.

THE FOLLOWING STATEMENTS ARE BASED ON REPORTS CONTAINED IN
"THE AGRICULTURAL WAR BOOK, 1916," PUBLISHED BY THE
DEPARTMENT OF AGRICULTURE, OTTAWA, ONT.

LIVE STOCK—The herds and flocks of Europe have been greatly reduced. When the war is over there will be a great demand for breeding stock. Canadian farmers should keep this in mind.

MEATS—In 1915 Great Britain imported 664,508 tons of beef, mutton and lamb, of which 364,245 tons came from without the Empire. Out of 450,400 tons of beef only 104,907 tons came from within the Empire.

The demands of the Allies for frozen beef, canned beef, bacon and hams will increase rather than diminish. Orders are coming to Canada. The decreasing tonnage space available will give Canada an advantage if we have the supplies.

WRITE TO THE DOMINION DEPARTMENT OF AGRICULTURE AND TO YOUR
PROVINCIAL DEPARTMENT FOR BULLETINS ON THESE SUBJECTS

Tens of thousands of Canada's food producers have enlisted and gone to the front. It is only fair to them that their home work shall be kept up as far as possible. The Empire needs all the food that we can produce in 1916.

PRODUCE MORE AND SAVE MORE
MAKE LABOUR EFFICIENT

SAVE MATERIALS FROM WASTE
SPEND MONEY WISELY

THE GOVERNMENT OF CANADA

THE DEPARTMENT OF AGRICULTURE

THE DEPARTMENT OF FINANCE

Why Not a Wind Break Around Farm Buildings

(Continued from page 6.)

land than is the white pine. Because of its very dense foliage the white cedar makes an excellent protection for poultry yards and gardens. It is, however, slow in growth as compared with the Norway spruce or the pine.

British Columbia Planting.

"In British Columbia the Douglas fir (*pseudotsuga mucronata*) is probably one of the best for windbreak purposes. It is thick and bushy and of rapid growth. The western red cedar (*Thuja plicata*), on account of its dense foliage, should make an excellent shelter-belt. I am of the opinion that in the dry belt region of British Columbia the bull pine (*Pinus ponderosa*) will be found a more satisfactory tree than either the Douglas fir or the cedar. It has dense foliage, endures droughty conditions and in this region would probably make faster growth.

"Deciduous trees, because of their leaf shedding characteristics, do not make as effective shelter-belts as the evergreens. Hawthorn (*coastalis*), Manitoba maple (*Acer negundo*), Willow (*Salix*), cottonwood (*Populus deltoides*), yellow locust (*Robinia pseudoacacia*) have been planted for this purpose and can all be grown in the more temperate portions of Eastern Canada. One of the objections to using the cottonwood about an orchard or garden is its habit of sending up root suckers.

"The choice of species for a shelterbelt depends largely upon local conditions as well as the requirements of the owner."

Varieties for the West.

I do not know from experience what trees are best suited to shelter-belt planting in the prairie provinces, so again I referred myself to the forestry branch for information and have been supplied with the following, the varieties being classified according to their suitability to various soils:

Heavy clay: Manitoba maple, green ash, elm, cottonwood, willow, larch, Scotch pine. In south-eastern Manitoba the soft maple, scrub oak and basswood may also be planted.
Moist sandy loam: Manitoba maple, green ash, elm, cottonwood, willow, birch, larch, Scotch pine, Jack pine and white spruce.
Dry sandy loam: Manitoba maple, Russian poplar, some willows, Scotch pine, Jack pine and white spruce.
Sand or gravel: Russian poplar, white spruce, Scotch pine and Jack pine.

Low wet land: Ash, elm, cottonwood, black poplar, larch, black spruce and willow.

In my travels over the prairies, I always felt loneliness. I have also journeyed through sections to the south of the border, which have been longer settled and which are now fairly well planted to trees. There is all the difference in the world. The treeless prairie is homelike; the treeless prairie is not. However, I expect a new interest in tree planting that will relieve the monotony of the prairies and I hope, too, the monotony of many of the rural sections of the East, where the hand of man has gone too far in removing the tree growth, will inspire planting afresh. But let me conclude with another paragraph from Jack's letter.

"My ideal is a productive farm, a comfortable home and both beautiful. My dad never did his son a better service than when he planted trees in such numbers that people thought him crazy. He did the biggest part toward making our farm, in my eyes at least, the most beautiful in the township.

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SEEDS

How We Have Used Cement in Our Farm Improvements

(Continued from page 7.)

on the farm and a concrete floor in the cellar and woodshed. We do not know how we would get along without any one of these improvements.

An Up-to-Date Milk House. One of the many ways in which we have utilized cement was in the construction of a milkhouse. This house is all concrete except the doors, windows and roof. The roof is covered with galvanized iron slating.

In building the milkhouse we built the walls first and then filled it up with earth to a level of the platform on the milk wagon. We let it stand for a short time to settle down before we put the cement floor on it. By having the floor on a level with the milk wagon platform, it answers as a milk stand and also elevates the water we use in cooling the milk. We can then run the water wherever we want it for watering the stock.

It is surprising how many farms have scarcely seen cement, when it can be used so easily. Its use does not require any great mechanical skill, but merely a little common sense and a little ambition. The main thing to observe to make a good solid job is to thoroughly mix the gravel, pound it in good and solid, and with good clean gravel, anyone can make a solid job.

Since making the concrete improvements already mentioned we have erected a new barn, silo, etc. Cement was used to construct the feed mangers and also the approach under which is a root cellar 14 by 45 feet, all floored with concrete reinforced with one inch reinforcing iron every 16 inches apart. This makes a very solid job, as shown by the fact that a 20 horse power engine and 7,500 pound threshing machine were driven on it at the same time.

Two Gallons of Paint

(Continued from page 8.)

"called off into nearly hysterical laughter.

"Well go on, laugh, then, but when you see the paint bill I'm going to have to pay, you won't laugh so much."

"Oh Sam" and "Oh Sammy"—"Are you really?"—"Do you mean it, Sammy?"

"I certainly am"—and "I sure do, ladies," and with not one word more Sam bowed nearly to the floor and set out for town—alone.

By the middle of October the work was all done. In a splendor of new paint the "Old Greenway place" again looked the part of the prosperous farm it used to be.

The fine old house with its new shiny suit of clothes; the big old barn with its grand red coat; the white front fence, new-painted and with green gate hanging on both hinges; the tall white windmill tower with its new painted mill now whirring steadily in unobtrusive fabrication; all vied in beauty with the modest hen house. The hen house now with a fine gray trimming setting off its neat whiteness. Something had happened.

The "something" whatever it was had spread all over the place and with a world of work yet to be done, it could easily be seen that the old farm was coming back into its own. Something had happened. What it was may be guessed by us if we listen to some words in the president's room of the Farmers' National Bank.

"Mr. Haywood, I want to borrow \$2,000."

"Better tell me about it, Sam."

"Well, I want a manure spreader, some new fences and gates and a silo and I've got to have some real cows and a bull calf. I've got to get a calf for I want a good one. I can get the



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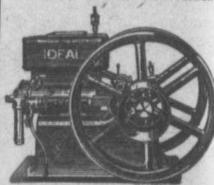
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spreader and fences on time, but I can make a better deal for cash. Will you let me have it?"

The tall young farmer forgot all the nice speeches he had planned to make as an appeal for the money, but his honest gray eyes beamed into the banker's face and told his story for him well—better than all his careful preparation ever could have done.

"Well, Sam—Sam, I've been watching you since I saw you loading up that waning load of paint last August and if you had forgotten to paint that window, and the machinery, I wouldn't have let you have it. As it is—well, is 7 per cent. all right? You've certainly done the right thing by your place and I'll just bet \$2,000 on you. What kind of cows are you getting?"

"Well, I don't know yet, but they're going to be pure bred dairy cattle—thank you ever so much." And Sam stopped to laugh with the old banker. But a great light had shone in upon him once again.

"Sam, I've always noticed," said Mr. Haywood again, "that a man who paints his barn and house and doesn't forget the machinery too, always pays his note when due."

In two weeks the scrubby four or five had departed for the stock yards and in their stead 10 sleek, beautiful, real dairy cows waited contentedly for milking time.

Back of the barn were the forms for the concrete foundation for the new silo.

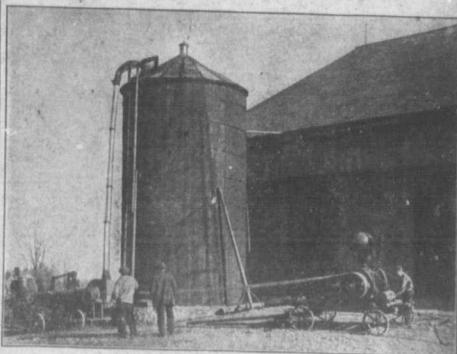
Leaning with one arm on the barnyard fence and the other around the waist of a very happy wife and a very happy young farmer, Sam stood looking at his new herd.

"Aren't they beauties, Sam?"

"Yes, Janet, and if you hadn't painted the hen house, I'd never have seen the light. Who would have thought that three gallons of paint would have made such a difference?"

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WINNIPEG QUEBEC ST. JOHN, N.B.

With every disease or pest there is a time when it can be combated to the greatest advantage. There is always a weak link in the life chain at which it can be most easily destroyed. With smut this is while the smut

spores are adhering to the grain which is to be used for seed. If they are prevented from infecting the grain at this time, there is no other time at which they can possibly infect it.

Production



Massey-Harris Cultivation and Seeding Bulletin

Thrift



A Good Start Is Half the Battle

THOROUGH cultivation and correct seeding are necessary in order to raise satisfactory crops.

The days of scratching the surface with a crooked stick and scattering the seed on the top of the ground are a thing of the past.

If weather and other conditions are favorable, such methods might produce some sort of a crop, but bumper crops can only be produced by careful attention to the preparation of the seed bed and putting in the seed.

The most noticeable result of cultivation is the pulverizing of the soil. This makes it easier for the hair like roots to get through, increases the amount of surface on which the plant can feed, and, at

the same time gives the soil a greater capacity for holding moisture. And not only does it increase the capacity of the soil for holding water, but also reduces the loss by evaporation.

Aeration of the soil is another result of cultivation. The oxygen in the air tends to make the mineral matter of the soil more soluble, and is necessary to the decomposition of organic matter upon which the plants feed.



In many other ways cultivation is a benefit to the crop, and it can be readily seen how important it is that the soil be given proper treatment.

It is just as necessary that the seeding be done right—the right amount of seed sown in a correct manner, at a uniform depth and so distributed as to give each plant a chance to develop and draw nourishment from the soil.

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Detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."
Advertisers shall not pay their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to assist in trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd.
PETERBORO, ONT.

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

The Latest Rural Necessity

THE automobile is the latest rural necessity. When Neighbor Jones, in a reckless moment, "toll tor" the glib talk of a sales agent and brought the first automobile into the neighborhood, we all flocked out to have a look at the new contraption. Now the Neighbor Jones all over rural Canada have lots of company on the road. The horses do not jump ditches or climb fences when a car swings in sight, as was once their practice, and in some sections at least a rural picnic looks like a meet of auto enthusiasts. The farmer's car has become a commonplace.

We are glad it has. The farmer's car shortens distances and affords a pleasant diversion from the work of the day. It treats a fellow to get out in the machine, lean back and take a spin. It is doubly refreshing to the farm women folk. It pumps the lungs of all of us full of pure air, and does us all sorts of good. The farmer's car is enabling us to get more out of life.

Good Roads

RAILROADS are the great arteries of trade, but roads, just plain country roads, are of still greater importance in the economic life of the nation. The better the roads, the lower the hauling costs. The better the roads, the better the opportunities for church attendance and social intercourse among rural peoples. This question of good roads is vitally related to all aspects of country life—economic, social, religious, educational.

We wish to emphasize our belief in good roads and our realization of their importance.—We find that the attitude of Farm and Dairy on this problem has been misunderstood, principally because we have failed to throw up our hats, metaphorically speaking, for every movement presented to the public with a good roads label attached to it.

Automobile highways between big cities, whose cost exceeds the utmost limit of their economic use, the Toronto to Hamilton fiasco for instance, do not meet with our approval. But the same improvement of the highways over which the farmer drives to market and goes to church, appeals to us as one of the most necessary of all public improvements. Any movement in this direction will receive our hearty support, even if that support must be tempered with sympathetic criticism. All ill-considered and extravagant road improvement plans tend, we believe, to retard the improvement of the country roads that are used by plain country people.

Community Breeding the Ideal

SOMETIMES fear," writes one of our folks who never writes unless he has something worth writing about, "that Americans, and in this I include Canadians, are altogether too puffed up over the fact that we have on this continent all the world's record cows of all the best dairy breeds. Great production by individual cows is a thing worth while, but a good average production for all the dairy cows of a district or a township or a whole county, if you like, is more important, and in this we can" compete with the older lands. They haven't gone after big records, but big averages, and they have them, and they have succeeded largely by community work."

The last statement is the significant one—"They have succeeded largely by community work." It is always easy to go with the crowd. The man who would never, of his own individual initiative, buy a pure-bred sire and grade up his herd, will go along with a community breeding scheme just because it is the easiest thing to do. The small dairy farmer, ambitious to improve, but held back by the cost of a good sire, and the smallness of his herd, finds in the cooperative breeding society a means to attain his ambition at little expense. Even the big dairymen, who can and do own pure-bred sires of their own, profit by community effort in the better market that develops for the surplus stock of the community. Old land records may be easily broken, but their averages will never be exceeded on this side of the ocean until we adopt their community methods of breeding.

The Farm Home

FACTORY looks out of place in the open country. We see them occasionally and with the effect that they leave is not pleasing. "And yet," writes a correspondent, "a factory in the country isn't any more out of place than the modern city-style house that many of our most prosperous farmers are building on their farms."

We believe that our correspondent is right. City architects design houses to fit the narrow lots and high priced lands of the city, where houses sit tight together in snug rows. The same type of houses, built in the country, appears silted and awkward. As a general rule, too, the house planned by a city architect is not too well fitted to the requirements of a farm home.

We need a rural style of architecture. Just what style we will evolve, Farm and Dairy is not prepared to state. There are some characteristics, however, that rural architecture will have. The rural home will be built with ample grounds around it; and in the country is not priced by the foot, but by the acre. The front of the house will be broad and comparatively low, instead of high and narrow as in the city. There will be ample piazza space. The design will be simple and effective. The interior of the model farm house of the future will be designed for convenience and comfort. Proper provisions will be made for heating, lighting and sanitation. All of these features will be combined equally well in the modest home of the rural day laborer, and the best that the farmer can build. Along with this

new style of rural architecture, will come a breed of rural architects who appreciate the simple yet attractive lines required to make a farm home beautiful, as contrasted with the more elaborate architecture that will always be characteristic of the city.

Wasted Fertility

IF the dollar and cents value of all the fertilizing ingredients lost in barnyard manure this spring could be collected together for the Patriotic Fund, there would be no more need for public subscriptions. This may be a strong statement, but it is a true one. Canadian farmers of to-day have advanced a stage ahead of the old pioneers who moved their buildings periodically to get away from the accumulations of manure, but our flagrant waste of fertility still amazes visitors from lands where the value of manure as a fertilizer is more fully appreciated than it is here. A few years ago, for instance, the students at Cornell University were asked to draw cartoons depicting the one phase of agriculture that impressed them most. The prize went to a Japanese student at the University, who depicted an army of Brownies carrying away heavy baskets of valuable fertilizer from the exposed manure heap of an American farmer. That was the plan of American agriculture that impressed him most.

This cartoon was drawn a few years ago, but the feature noted by the Oriental is still one of the weaknesses of our agricultural practice. Farming may be compared to the Niagara of milk, seen by many of our folks at the Canadian National Exhibition last year. The same milk flowed over the precipice again and again. Suppose that a leak were sprung in the containing tank below and a little milk lost at each round. The milk in the Niagara would soon have been dry. Each year the fertility of the soil is made and remade through the crops. If a little is lost each year, due to careless handling of the manure, or other causes, the crop producing power of the soil is gradually depleted until the profits of working the land vanish. This has already happened on thousands of farms in Eastern Canada, and on not a few in Western Canada. In fact, many soils would now be utterly useless did not nature step in and call a halt on this profligate agriculture ere her storehouse of fertility is completely exhausted. A permanent agriculture can only be built on a system of farming that properly conserves the fertility of the soil.

Where the Sire Counts

(Country Gentleman.)

ON a dairy farm that had ten or twelve scrub cows, a carefully selected pure-bred dairy sire was installed. That this sire was a most potent factor for profit appeared in the first ten of his daughters to freshen. They averaged well above 325 pounds of butterfat each as three and four year olds.

Without doubt these results were influenced somewhat by other factors—the silo, a comfortable barn in which are stored an abundance of good alfalfa hay and plenty of farm-raised concentrates, and a general idea of a balanced ration. But without the introduction of good dairy blood all other improvements would have been miserably handicapped.

To rank as a real dairyman one should have all the above equipment, and also scales, milk record and Babcock tester; and should weed out cows that fall much below the average production as fast as promising heifers freshen to fill the stalls. A teacher from a neighboring state maintains, and not without truth, that the best pencil is the most important tool employed in the business of farming. After all, real success in dairying comes from the careful selection and employment of many factors.

In Union There is Strength

New United Farmers' Clubs Being Formed

SECRETARY J. J. MORRISON, of the United Farmers' Cooperative Co., Ltd., has addressed several Farmers' Clubs throughout the province during the past few weeks. On March 27 a new club was organized at Balderson, Lanark Co., of which Ed. W. Wood was elected president, and R. S. McTavish secretary. District Representative Forsythe also addressed the meeting.

The following day a meeting of the Perth branch of the South Lanark Farmers' Club was attended. A resolution of affiliation with the central company was passed.

A new club was organized at Carleton Place, Wentworth Co., on April 17, with a membership of 13. The officers elected were as follows: President, Silas Gaddrey; Vice-President, Ed. Howard; Secretary, Chas. A. Newell; Directors, Elmer Adamson, Jas. Smith, R. Gargie, and Jas. Boyle, all of Carleton Place. About 25 were present at the meeting.

United Farmers Plan Active Campaign

PLANS for an active campaign by the United Farmers of Ontario, were completed at a meeting of the board of directors held in Toronto, on April 26. In order that the farmers throughout Ontario, who are unable to attend the annual conventions of the association in Toronto, may be made better acquainted with the objects and aims of the Association and what it is endeavoring to accomplish, general plans were completed for the holding of five district conventions during June. These conventions should be held at Chesterville or Wainchester in Dundas county for Eastern Ontario, at Belleville for Central Ontario; Palmarston, Petrolia and Woodstock for their first 10 to 20 members, and in Western Ontario. The dates for the meetings will be arranged largely to suit the convenience of the speakers. In the meantime they have been set tentatively for June 7 to 14.

It is intended to hold morning and afternoon sessions at each point, and to invite all the farmers' clubs and groups in each district to send delegates. As far as possible the speakers and subjects at each convention will be as follows: Morning session, T. A. Cramer, the president of the Grain Growers Grain Company, Winnipeg, will speak on "The 56,000 organized farmers of the west." Mr. John Fritchard, of Gorrie, Ont., the president of the United Farmers' Cooperative Company, Limited, will describe the objects and aims of the company and tell what it is and what it is accomplishing. Mr. Anson Groh, the manager of the same company, is to be asked to speak on "The relation of the Central to the Locals."

At the afternoon sessions Mr. Cramer will speak on "The possibilities of the Organized Farmers' Movement and some of its Dangers." Mr. R. H. Halbert, of Melancthon, the president of the United Farmers of Ontario, on "Why Ontario Farmers Should Rally to the Call." Mr. J. J. Morrison, the secretary of the same organization, will speak on "How Local Organizations Can Help Out the Cause." It is possible that local district associations may be formed at each convention point to arrange for future conventions and push the work of organization in their districts. Should satisfaction be their districts, by means of the foregoing arrangements will be made to get good substitutes. In addition to the foregoing meetings a series of local meetings are to be held in parts of York and Ontario counties

during June, which will be addressed by Mr. John Kenesedy, the vice-president of the Grain Growers' Grain Co., of Winnipeg.

Association Plans.

The directors approved of a design for an association pin. The design shows a pair of clasped hands with a maple leaf as a background. These pins are to be sold to members of the movement all through the province. They are quite handsome and will provide a source of revenue for the association.

The directors decided that the United Farmers' of Ontario should affiliate with the Canadian Council of Agriculture which already includes all the western farmers' organizations. Mr. R. H. Halbert, the president of the Ontario Association, has been elected a vice-president of the Canadian Council of Agriculture.

Mr. Halbert and Mr. Blatchford, of Oxford county, were appointed a committee to confer with a similar committee from the United Farmers' Cooperative Company, Limited, in regard to devising a comprehensive plan of action for pushing the farmers' movement in all parts of Ontario. This may include the publication of a small paper. The directors present were: President Halbert, vice-president, A. J. Reynolds, Solina; E. A. Van Allan, Aultsville; L. H. Blatchford, Embro, and Secretary J. J. Morrison.

Regulation Regarding Delegates

A MATTER of considerable interest to the local Farmers' Clubs throughout the province was dealt with at the recent meeting of the directors of the United Farmers of Ontario held in Toronto. It was decided that at the annual convention held in Toronto, each local will be entitled to send one delegate, and to have his railway expenses paid for their first 10 to 20 members, and an additional delegate for each additional 20 affiliated members. In other words, a Club that is affiliated with the Central, having anywhere from ten to twenty members, may send one delegate; a club having 20 to 40 affiliated members may send two, and a club having 60 affiliated members may send three, and so on in the same proportion.

At the time of the last annual convention in Toronto, a committee was appointed to deal with this matter. Mr. J. J. Morrison, the secretary of this Association, was a member of this committee, and has certain information he intended to lay before it, but owing to pressure of other work, he was unable to meet with the committee. The committee later brought in a recommendation that only clubs having 10 to 60 members could send a delegate and have his expenses paid, and one delegate for each extra 50 members. This was adopted by the convention, but later was the cause of considerable dissatisfaction. It has become apparent since the convention that were this regulation to be enforced it would greatly reduce the number of delegates at the next convention. The directors, therefore, have reconsidered the resolution adopted at the convention, and assumed the responsibility for replacing it with the new regulation, which it is believed will apply and safeguard the financial interests of the Central, without imposing a hardship on the locals.

Did you ever consider this advantage of clover? Its dense growth acts as a smother crop to the weeds whose germination is first induced by the clover shading the soil and keeping it moist.



The Supremacy of the De Laval Cream Separator

Supremacy in Skimming Efficiency

Over 25 years of experience and thousands of tests and contests the world over have demonstrated the De Laval to be the only thoroughly clean skimming cream separator, under all the varying actual use conditions, favorable as well as unfavorable.

Supremacy in Construction

This applies to every part of the machine—the bowl, the driving mechanism, the frame and the tirawax. The De Laval Patent Protected Split-wing Tubular Shaft Feeding Device makes possible greater capacity, cleaner skimming and a heavier cream than can be secured with any other machine.

Supremacy in Durability

The De Laval is substantially built. The driving mechanism is perfectly oiled and the bowl runs at slow speed, all of which are conducive to durability and the long life of the machine. While the life of other cream separators averages from three to five years, a De Laval will last from fifteen to twenty years.

Order your De Laval now and let it begin saving cream for you right away. 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.

DE LAVAL DAIRY SUPPLY CO., LIMITED
 MONTREAL PETERBORO VANCOUVER
 WINNIPEG
 50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Supremacy in Improvements

This has been the greatest factor in the De Laval success. Not a year goes by but what some improvement is made in De Laval machines. Some of the best engineers in America and Europe are constantly experimenting and testing new devices and methods, and those which stand the test are adopted.

Supremacy in Service

With its world-wide organization and with agents and representatives in almost every locality where cows are milked, no stone is left unturned by the De Laval Company to insure that every De Laval user shall get the very best and the greatest possible service from his machine.

Supremacy in Satisfaction

De Laval users are satisfied users, not only when the machine is new, but during the many years of its use.

Supremacy in Sales

Because they are supreme in efficiency, construction, durability, improvements, service and satisfaction, more De Laval Cream Separators are sold every year than all other makes combined.

A FAVOR OF YOU Please mention FARM AND DAIRY when writing to our advertisers.

25 CENTS **WONT BREAK - WONT BIND**

Griffith's Handy Tie is as strong as two knots, but it won't bind. You could tie or untie it with your teeth. It's as handy as a snap and ring, but it won't break. If your dealer can't supply you, send a quarter and get one by mail.

Griffith's Handy Rope Tie

You can see dozens of Griffith's money-savers at your dealer's. Ask him for our list of names, quantities, or write to us. Mention this paper. We will see that you get our goods at regular prices. **Griffith's Handy Rope Tie**

G. L. GRIFFITH & SON, Inc. Waterloo St., Stratford, Ontario, Canada.

Lake Marie Farms

Sir Henry Pellatt, Proprietor

80
HEAD

65
FEMALES

Announcement—The scarcity of farm help and other purely local conditions have necessitated the complete dispersion of our big herd of Holsteins at Lake Marie Farms and the replacing of it with Clydesdales and beef cattle. Our richly bred herd of 80 head of "Black and Whites" will therefore be sold by public auction, absolutely without reserve, on the date below. The foundation for Lake Marie herd was made by selections from the best herds in Ontario.



TYPE, CONFORMATION, BREEDING—In every way he shows the blood of the great King Segis.

The cows were selected not only for show ring type, but also for performance, as their records and winnings will indicate. They are sired by such noted animals as Francy Bonerges Korndyke, son of Francy Bonerges Ormsby; Prince Abbekerk Meroena, the noted show sire, recently sold for \$475; Brookbank Butter Baron, the sire of Queen Butter Baroness; Schulling Sir Posch, and others.

Segis DeKol the Sr. Herd

Sire needs no recommendation. Note the illustration.

A grandson of the great King Segis, and of Blanche Lyons DeKol, 33.31 lbs., he will make an offering fit to head any herd in the Dominion. Mark him if you require a quiet, sure sire for heavy work, and backed by the best blood in Holstein history. A great majority of the record females will be in calf to him and freshening about the time of sale. Seldom does the opportunity present itself to Holstein breeders to secure females bred to a bull of such a type and backed by such breeding. If you need foundation animals be with us at

King, Ont., Thursday, May 11

Mark These

Sir Colantha Abbekerk
Beauty Favorit Posch
Dorothy Dorlika
R.O.P. at 2 yrs: 9,407 lbs.
milk.
Lake Marie Butter Baroness
Jemima Pietartje
Look up her record in the
catalogue.
Segis-Schulling Prince
Segis DeKol.

Sires—The sires to be offered are exceptional in breeding and type. In addition to the Sr. Herd Sire above, there will also be several of his sons, ready for service, and from splendid dams. These young sires carry the splendid make-up of Segis DeKol.

If you require a sire, don't fail to avail yourself of the choice of one of these sons out of one of our best cows. The blood behind these fellows guarantee that they will make good in any herd. Look them up when you get your catalogue.

Sir Colantha Abbekerk, the Jr. Sire, is a grandson of Dutchland Sir Abbekerk. Many of the females will be in calf to this fellow.

In addition there are a couple of splendid sons of this bull ranging from a few weeks to ready for service, all nicely marked, deep and type.

Any one looking for herd leaders will surely find them at Lake Marie. They are well grown—several ready for work. To see them is but to be convinced of their worth.



SEGIS SCHULLING PRINCE—one of our young sires—a son of Segis DeKol, and prominent at Toronto in 1915.



Keeper's lodge and entrance to Lake Marie Farms.

To every breeder and admirer of Holsteins we extend a kindly invitation to visit the big estate at picturesque Lake Marie Farms. You will enjoy your visit and inspection of our modern dairy buildings—some of the finest in Canada. See also our Clydesdale foundation stock and our modern poultry plant. We welcome you.

Sir Henry Pellatt, Proprietor, Lake Marie Farms

Complete Dispersion Sale

Every Animal Must be Sold

Sr. Sire
Segis DeKol

Jr. Sire,
Sir Colantha
Abbekerk

The Offering of Females

Among the many good cows in the Lake Marie Herd, we wish to specially mention: **Jemima Pietertje**, a show cow and a producer. She has a record of 15 lbs. butter per week, made several years ago as a young cow. Her offspring are specially good, and inherit their dam's milking ability. Her 2-year-old daughter, **Lucy Pietertje**, was first in her class at Toronto, 1915.

Dorothy Dorliska, who has a record of 9,907 lbs. milk in R.O.P. at 2 years, testing 3.7 per cent.

Winnie Pietertje Posch, 2-year-old, who, on very ordinary feed, is now giving over 50 lbs. per day.

Evergreen Rex, who looks well and works better.

Julia Abbekerk, a large, roomy cow, with exceptional udder capacity and dairy development.

Canary Clothide, a typical wedge-shaped cow of great substance and capacity.

Bell Posch, another large, well-proportioned cow with nicely-balanced udder and good teats.

These are only a few of the good ones in our string of 27 now milking. Many of the others will be coming in just about sale time, including some very sweet 2-year-olds. They will all be ready to do their best work in the heavy milking months ahead.

Look over the list of 68 females slated in the catalogue.

is particularly strong. They trace to such great producers as **Jenny Bonerges Ormsby**, **Blanche Lyons DeKol**, **Queen Butter Baroness**, and others.



LAKE MARIE BUTTER BARONESS—the kind that Holstein breeders travel far to secure.

80 Head Registered Quality Holsteins

The Younger Stock

The Younger animals are all in fine condition and mostly from our senior sire, Segis DeKol.

In heifers, **Lake Marie Butter Baroness** (shown above) is a model in show type, yet gives every indication of being a big producer.

Beauty Favorit Posch is another youngster of quality that will be good buying. There is a long line of these all ready for business.

In buying these on May 11 you are securing richly bred, (still untested) females, with their entire life before them. You buy them absolutely at your own bid, as not an animal will be reserved.



BEAUTY FAVORIT POSCH—A breedy heifer of pleasing type and good indication.

A Few of our Offerings

27
Females in Milk

10
Two Year Olds in Calf to Sr. Sire

Several Sons of Segis DeKol Fit For Service

Terms of Sale—CASH, unless otherwise arranged for on day of sale. Sale to commence at 12 o'clock, noon.

Trains from Toronto and north will be met at King on morning of sale. Also radial cars at Eversley that connect with Toronto Metropolitan line at Schomberg Jct. Lunch served at noon.

FOR CATALOGUE WRITE TO-NIGHT TO

R. S. Starr, Manager, Lake Marie Farms, King, Ont.



The beautiful dairy at Lake Marie.

OUR FARM HOMES



HE Became like those with whom we associate. A man's ideals mold him.
—S. D. Gordon.

God's Country and the Woman

(Continued from last week.)

SUDDENLY he concentrated his gaze at a point on the lake three quarters of a mile away. It was close to shore, and he was certain that he had seen some movement there—a flash of sunlight on a shifting object. Probably he had caught a reflection of light from the palmetto horns of a moose feeding among the water-lily roots. He leaned forward and shaded his eyes. In another moment his heart gave a quicker throb. What he had seen was the flash of a paddle. He made out a canoe, and then two. They were moving close in-shore, one following the other, and apparently taking advantage of the shadows of the forest. Phillip's hand shifted to the butt of his automatic. After all there might be fighting of the good old-fashioned kind. He looked back in the direction of the tent.

The girl had reappeared, and was looking at him. She waved a hand, and he ran down to meet her. She had been crying. The dampness of tears still clung to her lashes; but the smile on her lips was sweet and welcoming, and now, so frankly that his face burned with pleasure, she held out a hand to him.

"I was rude to run away from you in that way," she apologized. "But I couldn't cry before you. And I wanted to cry."

"Because you were glad, or sorry?" he asked.

"A little of both," she replied. "But mostly glad. A few hours ago it didn't seem possible that there was any hope for me. Now—"

"There is hope," he urged.

"For an instant he felt the warm thrill of her fingers as they clung tighter to his. Then she withdrew her hand, gently, smiling at him with sweet confidence. Her eyes were like pure soft violets. He wanted to kneel at her feet, and cry out his thanks to God for sending him to her. Instead of betraying his emotion, he spoke of the canoes.

"There are two canoes coming along the shore of the lake," he said. "Are you expecting some one?"

The smile left her lips. He was startled by the suddenness with which the color flushed from her face and the old fear leapt back into her eyes.

"Two? You are sure there are two?" Her fingers clutched his arm almost fiercely. "And they are coming this way?"

"We can see them from the top of the rock ridge," he said. "I am sure there are two. Will you look for yourself?"

She did not speak as they hurried to the bald cap of the ridge. From the top Phillip pointed down the lake. The two canoes were in plain view now. Whether they contained three or four people they could not quite make out. At sight of them the last vestige of

color had left the girl's cheeks. But now, as she stood there breathing quickly in her excitement, there came a change in her. She threw back her head. Her lips parted. Her blue eyes flashed a fire in which Phillip in his amazement no longer saw fear, but defiance. Her hands were clenched. She seemed taller. Back into her cheeks there burned swiftly two points of flame. All at once she put out a hand and drew him back, so that the cap of the ridge concealed them from the lake.

"An hour ago those canoes would have made me run off into the forest—



Arbor Day Properly Observed in Norfolk Co., Ont.

and hide," she said. "But now I am not afraid! Do you understand?"

"Then you trust me?"

"Absolutely."

"But—surely—there is something that you should tell me: Who they are, what your danger is, what I am to do."

"I am hoping that I am mistaken," she replied. "They may not be those whom I am dreading—and expecting. All I can tell you is this: You are Paul Darcambal. I am Josephine, your wife. Protect me as a wife. I will be constantly at your side. Were I alone I would know what to expect. But—with you—they may not offer me harm. If they do not, show no suspicion. But be watchful. Don't let them get behind you. And be ready always—always—to use that—if a thing so terrible must be done!" As she spoke she lay a hand on his pistol. "Remember: I am your wife!"

"To live that belief, even in a dream, will be a joy as unforgettable as life itself," he whispered, so low that, in turning her head, she made as if she had not heard him.

"Come," she said. "Let us follow the coulee down to the lake. We can watch them from among the rocks." She gave him her hand as they be-

gan to traverse the boulder-strewn bed of the creek. Suddenly he said: "You will not suspect me of cowardice if I suggest that there is not one chance in a hundred of their discovering us?"

"No," she replied, with a glance so filled with her confidence and faith that involuntarily he held her hand closer in his own. "But I want them to find us—if they are whom I fear. We will show ourselves on the shore."

He looked at her in amazement before the significance of her words had dawned upon him. Then he laughed.

"That is the greatest proof of your faith you have given me," he said. "With me you are anxious to face your enemies. And I am as anxious to meet them."

"Don't misunderstand me," she corrected him quickly. "I am praying that they are not the ones I suspect. But if they are—why, yes, I want to face them—with you."

They had almost reached the lake when he said:

"Ah now, I may call you Josephine?"

"Yes, that is necessary."

"And you will call me—"

"Paul, of course—for you are Paul Darcambal!"

"Is that quite necessary?" he asked.

"Is it not possible that you might allow me to retain at least a part of my name, and call me Phillip? Phillip Darcambal?"

"There really is no objection to that," she hesitated. "If you wish I will call you Phillip. But you must

nodded. He saw that in spite of her struggle to remain calm she was seized again by the terror of what might be in the approaching canoes. He was straining his eyes to make out their occupants when a low cry drew his gaze to her.

"It is Jean," she gasped, and he thought that he could hear her heart beating. "It is Jean—and the others are Indians! Oh, my God, how thankful I am—"

She turned to him.

"You will go back to the camp—please. Wait for us there, I must see Jean alone. It is best that you should do this."

To obey without questioning her or expostulating against it, sudden displeasure, he knew was in the code of his promise to her. And he knew by what he saw in her face that Jean's return had set the world trembling under her feet, that for her it was charged with possibilities as tremendous as if the two canoes had contained those whom she had at first feared.

"Go," she whispered. "Please go." Without a word he returned in the direction of the camp.

CHAPTER FIVE.

Close to the tent Phillip sat down, smoked his pipe, and waited. Not only had the developments of the last few minutes been disappointing to him, but they had added still more to his bewilderment. He had expected and hoped for immediate physical action, something that would at least partially clear away the cloud of mystery. And at this moment, when he was expecting things to happen, there had appeared this new factor, Jean, to change the current of excitement under which Josephine was fighting. Who could Jean be? he asked himself. And why should his appearance at this time stir Josephine to a pitch of emotion only a little less tense than that roused by her fears of a short time before? She had told him that Jean was an Indian, part French, and that he "belonged to her." And his coming, he felt sure, was of tremendous significance to her.

He waited impatiently. It seemed a long time before he heard voices and the sound of footsteps over the edge of the coulee. He rose to his feet, and a moment later Josephine and her companion appeared not more than a dozen paces from him. His first glance was at the man. In that same instant Jean Croisset stopped in his tracks and looked at Phillip. Steadily, and apparently oblivious of Josephine's presence, they measured each other, the half-breed a little forward, the lithe alertness of a cat in his posture, his eyes burning darkly.

He was a man whose age Phillip could not guess. It might have been forty. Probably it was close to that. He was bareheaded, and his long coarse hair, black as an Indian's, was shot with gray. At first it would have been difficult to name the blood that ran strongest in his veins. His skin, the thinness of his face and body, his eyes, and the tense position in which he had paused, were all Indian. Then, above these things, Phillip saw the French. Phillip's heart became dominant part of the man before him, and he was not surprised when Jean advanced with outstretched hand, and said:

"M'sieur Phillip, I am Jean-Jean Jacques Croisset—and I am glad you have come."

The words were spoken for Phillip alone, and where she stood Josephine did not cast her eyes a wish of fire in the half-breed's eyes, nor did she hear his still more swiftly spoken words: "I am glad it is you that chance has sent to us, M'sieur Wer-man!"

(To Be Continued.)

also be Paul—your middle name, perhaps."

"In the event of certain exigencies," he guessed.

"Yes," he had still assisted her over the rocks by holding to her hand, and suddenly her fingers clutched his convulsively. She pointed to a stretch of the open lake. The canoes were plainly visible not more than a quarter of a mile away. Even as he felt her trembling slightly he laughed.

"Only three!" he exclaimed. "Surely it is not going to demand a great amount of courage to face that number, Josephine?"

"It is going to take all the courage in the world to face one of them," she replied in a low, strained voice. "Can you make them out? Are they white men or Indians?"

"The light is not right—I can't decide," he said, after a moment's scrutiny. "If they are Indians—"

"They are friends," she interrupted. "Jean—my Jean Croisset—left me hid here five days ago. He is part French and part Indian. But he could not be returning so soon. If they are white—"

"We will expose ourselves on the beach," he flushed significantly.

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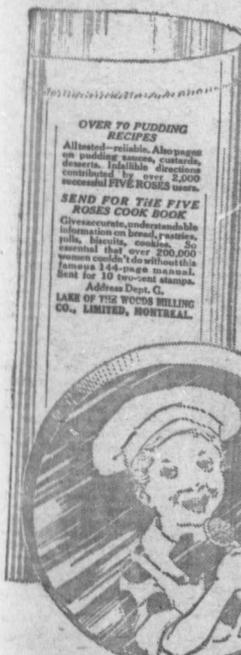
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The Upward Look

Travel Thoughts—No. 30
God's Wonders.

"PRAISE ye him, sun and moon; praise him, all ye stars of light."—Psalm 148: 2.
Three times last summer the words of this verse kept repeating themselves over and over in my mind. Until those times, never had the stars seemed so large and so bright. Once

was when I saw them from the vast stretches of the Arizona desert; again, as they were seen from the depths of the Grand Canyon, the mountainous cliffs rising grim, one mile on either side. The last was, as the ship was passing through Grenville Channel. That was the narrowest part of the Alaskan trip. The mountains rose black, and were reflected as black and as deep in the water beneath. In the heavens above and the depths below shone and gleamed those myriads of stars.

One night the old pioneer captain called us to see the Northern Lights, a life-memory sight: that vast over-

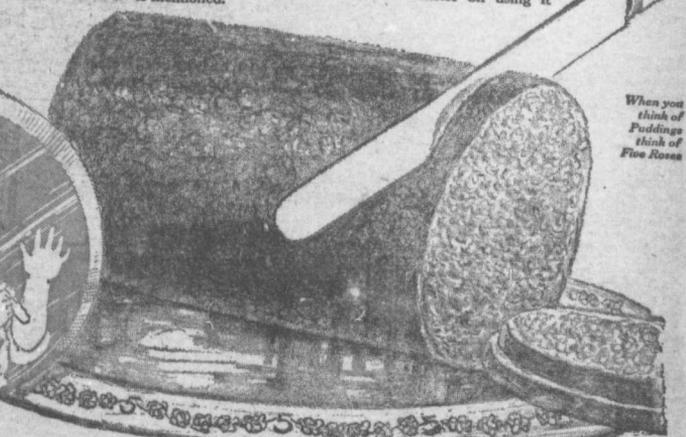
changing, quivering, many-colored curtain. He declared at times they time he had ever been really frightened was when these lights were as vivid as the phosphorescence of the ocean, and he could not distinguish between them to steer his course.

We do not need to go to distant places, but all have a heavenly wonderland wherever we may live. If these creations seem to be praising Him by their wonder and their beauty, so our lives must always be one glad hymn of praise. This praise need not be sung; but expressed in the brave smile, the happy expression, the con-

ident bearing. It may be expressed by tender thoughtful kindness towards others, as a thank-offering of praise.

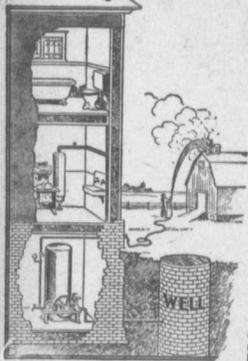
Though heavy clouds may obscure those heavenly bodies yet we know they are always there, ever offering the same tribute of praise. Sometimes the sorrows and anxieties come so heavy and so dark that our praise-hymn may be a pitifully weak one, but there is the time most of all we need to make it as joyfully glad as possible.

The wonder of the firmament is His creation. The wonder of our lives is His plan for us.—I. H. N.



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HOME CLUB

Her Husband's Business

I HAVE read with much interest the letter by "The Doctor's Wife," in April 13th issue and cannot but feel that all she says is correct, but far from being the general condition. "The Doctor's Wife" strikes at the heart of the whole affair when she says that "No woman should become a wife without being willing to understand her husband's business and also to assist him in it."

Observation and experience have taught me to believe that in the majority of cases women are not in a position to do this, and there are good, sound reasons for it, some of them being as follows:

In the past and largely at present, the consensus of opinion has been and is, that this is outside of the wife's sphere. She was supposed to look after the house, raise the family, and assist with the work generally, but the business—"well, that belongs to the boss." The worst feature of this line of thought is that the women concerned are largely satisfied, believing it to be right and according to the Almighty's plan.

Another reason is that in many cases the training and ideals of the young wife have been such as to render her unfit, in a large measure, to materially assist her husband. This is obviously due to the beliefs and ideals outlined in the above paragraph, also to the fact that girls and boys are educated in most other lines and not at all in business management. Worse still, they have had no actual business experience. It is my firm belief that business education and experience should be given every young man and woman before marriage. And it is the duty of every parent to see that their children have it. No place of business offers better opportunity to give this training than the farm, and yet no class of people are so neglectful of it.

A third reason why the average woman does not understand her husband's business is that there has been a tendency in the past to be little the farming business, and many young women marry good, wide-awake farmers and feel that they are taking a step downwards in the social scale. Consequently they do not care to mix too much in the business affairs of the concern, choosing rather to imitate their city cousins.

We need a change our system of ethics before we can improve this latter condition, and methinks present war conditions, and what may follow, will go far to solve the problem and bring the farmer and his vocation into its proper place in the world's economic, social and mental history.—"Brother Bill."

A Satisfactory Rearrangement

IF I am not mistaken the Farm Improvement Number of Farm and Dairy will be published in a short time. It just occurred to me today that probably a little improvement which we have lately installed in our home might be of interest to some Home Club members who are delving into all corners of the house at the all-important task of spring housecleaning.

The recent improvement has been in connection with the clothes closets. There is nothing much more convenient or necessary in connection with a bedroom than a clothes closet. Until we made a little change, however, I found it difficult to keep these closets looking neat. There was a tendency on the part of the whole

(Continued on page 24.)

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How I Would Spend \$300

Miss Mary Fulton, Renfrew Co., Ont.
(Premium Article.)

I F I were given \$300 for the purpose of improving my home I would immediately set about to purchase lumber and procure a carpenter to build verandas, and above them covered balconies. I would have one veranda at the front of the house, the front door opening on to it. Upstairs I would have the front window made into a door, which would open on to the balcony. Running along one side of the kitchen I would have the second veranda, and above it the second balcony, which could be reached by making one of the windows into a door.

Let me describe a front veranda that I saw last year. It was about nine feet wide, painted pale blue above, the posts and furnishings like the ceiling. Arranged artistically on the veranda was a small table, a sewing machine, a couple of easy chairs, a sofa and a hammock. Wild cucumber and flowering glory vines were growing along the front and at one side. Next to the vines were a couple of flower beds with a glorious array of asters, pinks, carnations, etc. It was indeed a restful beauty spot, and made one think of what the poet said: "A thing of beauty is a joy forever." When the members of our Women's Institute met at that home, do you suppose the hostess could coax us to leave the veranda and have our meeting indoors?

Now for the uses of my kitchen veranda. During nice summer weather I would have a table out there and we would have an out-of-doors dining-room. It is so pleasant to sit outside where there are birds and flowers and sweet, fresh air, laden with fragrance from clover fields or apple orchard. Here, in proximity to nature, I would also wash and iron, prepare vegetables, knit, sew, and so forth.

The balconies above are very useful when one wishes to shake mats, air clothes, and so forth. Best of all, we can utilize them as sleeping porches almost all the year round. People are beginning to realize more and more that if they want to have perfect health they must breathe pure, fresh air. If we are delicate, sleeping out-of-doors will help to make us strong; if we are robust, sleeping out-of-doors will help to keep us so.

A Seasonable Task for "Dad"

WHY not get "dad" or one of the boys to show their skill in carpenter work this spring by constructing a fireless cooker? It is one of the farm home improvements that is being used more extensively every year, but there are still many homes throughout the country in which this hot weather convenience has not yet found a place. A satisfactory cooker may be cheaply constructed right on the farm by the handy man of the family. Here is a suggestion which should be worth trying out:

Three wooden boxes (one long box and two square boxes); the long box must be large enough to hold the other two and still leave three inches of space between all the boxes.

Five and a half yards sheet asbestos, one yard wide.

Two covered enamel pails, cooking pails.

Burlap, denim or cotton-flannel, one yard.

Method:

First, line the bottoms and sides of all three boxes with the sheet asbestos, then in the bottom of the long box lay newspapers flat, or torn into fine pieces, to a depth of about half an

inch. Then put two inches of sawdust on top of this layer of newspapers. Then place the two square boxes inside the long one, leaving three inches of space between the two square boxes. Fill ALL the spaces between all the boxes with sawdust, felt or mineral wool. Then tack a strip of denim or other material from the edges of the square boxes to the outside edge of the long box, also across the space between the two square boxes, so that the strip of denim will cover all the spaces that are filled with sawdust.

The outside box must have a wooden lid. Line the lid with sheet asbestos to within a half inch of the edge of the lid. Then put a layer of sawdust one inch deep on top of the asbestos. Then tack a piece of denim or other material over the sawdust, still leaving the edge free and clear, so that the cover will fit down tightly. The lid may be made of denim, or cotton flannel, and filled with sawdust that will fit tightly down into the top of the box.

A Furnace First and All

Mrs. John T. Clark, Victoria Co., Ont.

IN the first place, if I were given \$300 with which to improve our home I would have a furnace installed, so that the house would be heated all through. Then I would have a door put in the partition between the front and back stairs, to save walking up two flights when doing the work. I would also have piping put in to carry the water to a bathtub, but have to empty it by dipping the water out. If there was enough money left after these improvements were made I would have floors fixed so that I could polish them, and would do some decorating in the way of papering and painting.

Our minds are given us, but our characters we make; God gives the mind, man makes the character; the mind is the garden, the character the fruit. Character is a subtle thing, and involves constant work in its formation. Whether it be good or bad it has been long in its growth, and is the aggregate of millions of little mental acts.—Jennette Greener, Huron Co., Ont.



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HEILA five octave organ in oil finished walnut case, high top with music rack, sliding fallboard, has 11 stops, including Bass and Treble Couplers, Forte, Vox Humana, etc. Grand organ and knee swell. This is a well known make, has been put into perfect condition and is a snap at **\$38**

DOMINION five octave organ in dark walnut case, handsome carved high top with factory bevelled plate glass mirror, sliding fallboard, lamp stands, has 4 sets of reeds and 16 stops, including Bass and Treble Couplers, Vox Humana, Forte, Viola, etc. Grand organ and knee swell. Another well known Canadian make of organ with a beautiful tone. Would be an ornament in any parlor. Special at **\$45**

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In the evenings it would make home much more attractive if there were some form of music and an open fire, for no two things tend to draw the family circle into closer comradeship than these. Unity, harmony and peace are developed—things essential to every home. Tell stories or read to your children—make their interests yours, and to a certain extent your interests and problems theirs. If they will have to live in their turn, and the greatest heritage you can leave them is that of a happy, contented childhood, full of tender memories of comradeship and true interest in all that concerns each individual.

A Satisfactory Rearrangement

(Continued from 1st p.) family (myself included, I fear), to pile as many articles of clothing as possible on one hook. When dressing in a hurry it was very easy to carelessly hang my shirt over a sheer blouse, to the detriment of the blouse in question. At times, too, when going to the clothes closet we would find that a heavy coat or skirt had been hung up hastily and had fallen to the floor. Then we introduced this idea:

Ordinary curtain poles were secured. We attached brackets to the end walls of the closets and ran one of these poles the full length of each closet. We invested in a number of coat and dress hangers, and it is the easiest thing in the world to hook these hangers over the pole. An advantage, too, is that hangers can be pushed back out of the way when selecting a garment to wear. Several blouses may easily be hung on one hanger without crumpling. In fact, they will remain as fresh looking as when they come from the ironing board, until we wish to wear them.

Above the hooks on the side walls of the closets we put up shelves, which come in very handy for boxes of different kinds. Just here I might add that we also put up a few shelves in our cellarway under the back stairs, and find them most useful for holding many things that are needed frequently, but which cannot be kept in the kitchen or pantry.

I am always on the lookout for new ideas for simplifying work and making things more comfortable, and would be glad to hear from some of the other Club members who have up-to-date suggestions to produce—"Aunt Floesia."



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If you are going to "do" the dining-room or the bedroom, or even the kitchen, this spring, you need this book. It illustrates in photogravure, in colors, rooms done with Alabastine. It contains suggestions and ideas for color schemes, and it shows how you can do the work yourself.

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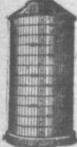
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Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

Fat Makes the Casein Valuable

W. A. ANDERSON, proprietor of the Keene factory, Peterboro county, when interviewed by a representative of Farm and Dairy, regarding paying for milk on a quality basis, stated that he had been paying on the straight fat basis for 14 years, and that in his opinion, the patron who is paid on this basis, does not get hurt. "The value of milk," said Mr. Anderson, "depends on the fat it contains, for it takes the fat to make the casein valuable. There is no doubt but that the fellow with the four per cent. milk is helping the three per cent. man out. When I was in British Columbia, I conducted some experimental work in which I showed the factory owner that it paid to buy rich milk as well as poor."

"But if you are going to pay for milk according to test," continued Mr. Anderson, "you need a good man in the factory. The testing of milk is a serious matter when the cash the pat-



A Desirable Cream Cooling Tank.
"There is also a compartment for the housewife. This tank is designed for the low or cold well or spring water coming out the cans. Additional room would need to be provided, for koolaid, where ice is used; and with ice, of course, is the more desirable method of cooling the cream."

ron gets depends on it. It is a good deal easier to get a good maker than it is to get a good tester. The market brings a man up on the making, but in my opinion the work of the man making the test should be inspected. There is not so very much danger of suspicion arising in the patron's mind regarding the accuracy of the test. The average patron will not look into the matter critically enough to become suspicious.

"From experience in making about 100 tons a year, I have found that about 2 1/2 lbs. of cheese is made from milk containing one pound of butter fat. One thing I have noticed is that in spite of the fact that I have been paying for milk on a straight fat basis, the percentage of fat in the milk received at my factory has lowered during the last few years. This shows that this general condition is not all to be blamed on the pooling system. The amount of milk a cow gives is more obvious to the farmer than the quality of it, with the result that he will keep the calves of his best milkers, the tendency being for the percentage of fat in the milk to decrease. The quality basis would have been adopted years ago if it hadn't been for the controversies of dairy authorities over the different systems. This disagreement left the patrons in doubt as to which method to adopt, with the result that the old pooling system was largely adhered to."

ABSORBINE STUPE LAMENESS
from a Bone Spavin, King Bone, Splint, Curb, Side Bone, or similar trouble and gets horse going sound. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. \$2.00 a bottle delivered. Horse Book 9 K free.

ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful Swellings, Enlarged Glands, Gout, Wens, Bruises, Varicose Veins, Venousness, Heat or Cold Sores, Allays Pain. Will tell you more if you write. \$1 and \$2 a bottle at dealer or delivered. Book "Evidence" free. Manufactured only by W. F. YOUNG, P. O. Box 115, Lyons, Minn., Montreal, Can. Absorbine and Absorbine, Jr., are made in Canada.

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Paying for Milk on a Quality Basis

Hon. Jas. Duff States That Export Trade Will Demand Greater Uniformity of Dairy Products. This Can Best be Attained by Regulation

The following is a report of the speech delivered by Hon. Jas. Duff in the Ontario Legislature, in presenting the Dairy Standards Act for its second reading:

LET me explain the situation and the legislation in regard to cheese factories. It should be understood that at the present time 90 per cent. of all the milk which is delivered at the 1,000 cheese factories throughout the province, is paid for on the basis known as the "pooling system." This means that all the milk is mixed together and averaged up, and each producer receives the same rate per 100 lbs. from the factory as every other producer delivering at that factory. Under this arrangement there is no reward for the man, who through careful breeding and feeding, has been able to produce milk of four per cent. butter fat as against the man who has only produced at the rate of three per cent. or less. For years this system has been criticized and even denounced.

Too Many Alternatives.

Why is this the case, it may be asked. If it is recognized, as it is recognized, that the value of milk for cheesemaking depends practically altogether on its content of butter fat and casein, why should milk not be paid for on this basis?

If the first question, the answer is found in the very number of alternatives suggested. One expert would advocate that milk should be paid for on the basis of its fat and its casein, as determined by actual test. Another expert would argue that the difficulty in making the casein test rendered this impracticable and that the basis should be simply the fat content, which could be arrived at more readily. Still another would argue that fat plus the factor two should be the basis and others hold that fat plus the calculated casein, that is casein calculated on a recognized table, should be the basis.

While the experts thus differed, nothing very definite was done, but in the eastern section of the province, 72 cheese factories adopted the system of paying by test, and in the west, 22.

Is a Workable Plan.

Now let me explain the provisions of the bill. It provides that all milk must be paid for on either a basis of

the butter fat content or of the butter fat content plus two. The factor two is a well-known factor in the dairy industry, as representing the content of casein, and it is held by some that it gives a fairer test of the value of milk than simply using the butter fat test alone. These alternatives are adopted not because we regard them as perfect, but because we think they are measurably practical and workable.

While I think that all this may be very safely said, I am not underestimating that there are still many difficulties in the way of carrying out the new arrangements. The practices and habits which have been developed through many years cannot be entirely altered in a moment, and many of the cheese factories are not equipped with even Babcock testers, and many of the makers are not fully qualified to make this test at the present time. This means that a considerable amount of education would have to be carried out in the cheese factories as well as among the producers before this would be generally understood or workable. Hence it is provided that the Act shall not go into effect before the 1st of April, 1917, so that the officers of the department may utilize the coming dairy season to carry on the necessary educational and demonstration work. It may be I am even then underestimating the length of time which will be required for this purpose, but if it can be shown that further time is needed, every consideration will be given to the matter of a further extension.

Great Increase Noted.

Permit me to add then a word as to the importance of the dairy industry in this province. The past season, as many of you know, was the most successful season in the history of the dairy industry in Ontario. Perhaps a few figures might prove of interest. There are in Eastern Ontario 847 cheese factories. At these there was delivered between May and November 1,927,000,000 lbs. of milk, an increase of 25,000,000 lbs. over the previous year. This was delivered by 29,607 patrons. In Western Ontario there are 151 cheese factories at which milk was delivered by some 11,112 patrons. When Ontario, of course, leads in regard to butter-making. There are in the western coun-



Tom—You're not turning as fast as Dad does, Mary. Mary—No Tom, but we'll get all the cream any way with this lovely new machine. Dad says

"It Skims Clean at Any Speed"

That's what this marvelous new invention actually does.

A fixed-feed separator may skim clean if in perfect order and turned at just the right speed. But every member of the family turns the crank at a different rate; no one can maintain an even speed all the time—it isn't human nature. Every old type separator has an unchanging inflow of milk. That's why it loses cream when not turned at exactly the right speed.

THE NEW SHARPLES SUCTION-FEED

Separator gets all the cream because it automatically regulates the inflow exactly in proportion to the separating force—always just right for perfect skimming.

The Suction-feed Separator delivers smooth cream of even thickness that churns out more butter of choicest quality. If you sell cream you can guarantee uniform density.

You can increase the capacity of the Suction-feed by simply turning faster, and get through quicker if in a hurry. The new Sharples is the only Separator that can be hastened. You can easily pour milk from a forty-quart can into the low supply can. It's the largest found on any separator—and it's only knee-high.

The women folks prefer the Sharples because the simple tubular bowl is so easily cleaned. Has only three pieces—no disks to wash or to get mixed up. The tubular shape gives double skimming force.

The new Sharples is ruggedly built for hard service. It is neat, compact, runs easily and oils itself.

This wonderful machine will earn you a new dairy profit—without added expense. Our new free book, "Velvet" for Dairymen, fully describes the Suction-feed. Your copy is ready. Send for it today. Address Dept. 77.

The Sharples Separator Co.
Toronto
Canada

Has 125 creameries and 40 cream shipping stations at which cream is delivered by 33,633 patrons. In Eastern Ontario there are 23 creameries, with 4,823 patrons. Thus we have 40,719 farmers who are producing milk for cheese factories and 37,861 who are producing cream for creameries, a total of 77,070 engaged in the dairy industry, aside from the many other thousands who are producing milk for human consumption in the cities and towns of the province.

Must Look to Exports.

Under these circumstances, I think all will agree with me that any legislation dealing with this important subject is worthy of our best consideration. This is especially important at this time because the dairy industry, like so many other industries and organizations, has been very materially affected by the war, and there is every prospect that the conditions af-

ter the war will be different to what they have been in the past. We have in recent years been catering very largely to the home market, and the home market has shown increased demands, which have resulted in a decrease in export. This home market will always be our most important market, but I am inclined to think that after the war is over, as well as during the war, we will have to look to the export market more than we have done in the recent past. Why do I say this? Simply because we have found a market in the construction camps, which for the time being at least, have very largely diminished, and also in the cities and towns of the western prairies, which will be catered to more and more by the western farmers as mixed farming is developed in these provinces. Under these conditions then, which will have to be faced more acutely after the

war is over, I think we should take every reasonable step to prepare to meet the circumstances as they can be foreseen.

April Crop Bulletin

ACCORDING to information collected under date of April 12, by the Ontario Department of Agriculture, from a large staff of correspondents, fall wheat and clover have come through the winter in good shape. There has been but little injury from heaving, and prospects for good crops are bright. Alfalfa is also promising well. All kinds of live stock have wintered well, though a form of indigestion, said to be the result of eating musty grain, hay and straw fodder, has been prevalent amongst cattle. Dairy cattle are rather thin in flesh owing to the heavy drain upon their milking powers dur-

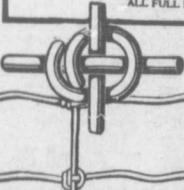
ing the past season. High prices for beef cattle and hogs have made a shortage in the number on hand.

The winter has not been a trying one to fruit trees, the greatest damage resulting from the girdling of young trees by mice and rabbits, driven to hunger by the deep snow-lying so long. The general outlook for all classes of fruit is favorable, apple buds giving better promise than for years.

The reports show the heavy drain on farm labor as a result of enlistment and the enticing wages paid by factories to munition workers. Several correspondents state that in many cases there is only one man on each 100-acre farm left. Others say that on such farms there is only about one out of five that has a hired man left on it. Wages are higher than ever, ranging from \$30 to \$40 a month, and even higher in some cases.

PRICE LIST				
No. of	Height	Spacing	Western	Ontario
Size	inches apart	horizontal	Prices.	Prices.
6	40	22	64-7-81-9-9	59-5
7	40	22	54-7-71-9-10	54
8	42	18	6-6-6-6-6-6-6	47
8	47	18	4-5-5-5-5-5-5	42-7
9	48	18	6-6-6-6-6-6-6	46
9	52	22	4-4-5-5-7-8-8-9	45
10	48	18	4-4-5-5-7-8-8-9	46
10	48	18	3-3-4-4-5-7-7-7-7	45
10	48	18	3-3-4-4-5-7-7-7-7	54
10	52	22	3-3-4-4-5-7-8-8-9	45
11	52	22	3-3-4-4-5-7-8-8-9	54

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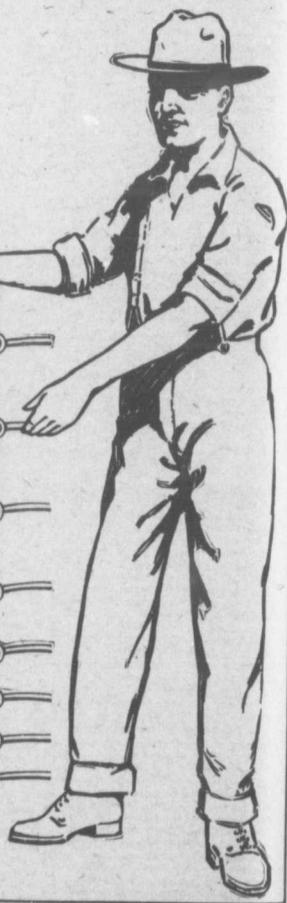
PAGE Fence is always a safe purchase—a good investment. There is absolute proof of its superiority—of its lifetime durability. At least we can show you some that's been up for 23 years, and still without a break, still giving good service.

we cut down weight and quality. And that we will not do.

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Beware of the too-cheap fence. Page fence prices are as low as they can be, unless

Send your order to the Page branch that is most convenient. Enclose cash, check, bank-draft or express order. We will ship immediately, freight prepaid on all orders of \$10.00 or more.



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From Fair Grades to Good Pure Breds

A Record of Progress in the Herd of Jacob Leuzler & Sons

A FEW weeks ago, a Farm and Dairy representative spent a day with Jacob Leuzler & Sons on their Oxford county farm. Naturally, talk biased around the dairy cow, particularly the Holstein cow. We found that Mr. Leuzler had made his start in dairying with an ordinary grade herd; not Holstein grades, but Durham grades, with a sprinkling of Ayrshire and Holstein blood. This herd was gradually developed, and then replaced by pure bred animals, until today there is on the farm a splendid productive pure bred herd of Holsteins. We requested Mr. Leuzler to send us a story of his herd improvement work. He promised to do so, and has since proved as good as his word. Here is Mr. Leuzler's story as told by himself:

"We established our pure bred herd and got rid of our grades in 1910. Our grade herd then had a local reputation of being a good one. In that herd we had two pure bred Holsteins. They are of the kind we would quickly discard now, but for profit they stood right at the top. It was a grade Holstein that convinced me first that it was on the wrong track in sticking to the milking Shorthorns. I purchased my first grade Holstein as a heifer rising two years, because I got her for little money, intending to keep her for one year and then send her by selling her to the butcher; we had her five years, and instead of getting rid of her, we kept adding to our grade Holsteins, and in 1912 we had but three Durhams, two pure bred Holsteins, such as beginners buy and the wisest avoid, five well bred Ayrshires and eight grade Holsteins.

The Durham Failure.
"The first grade Holstein as a two-year-old, we thought, did as much for us as our best Durham. Then we joined a cow testing association, which was organized the next year, and long before the year was over, we were convinced that as a milker the Durham was a hopeless failure. We started to weed, feed and breed, with the result that in 1910 the milk production of our herd went all the way from 4,000 lbs. from an Ayrshire-Jersey cross, to 7,150 lbs. from a pure bred Holstein, and the fat records varied from 165 lbs. from

a two-year-old, to 233 lbs. from a seven-year-old Holstein grade, the latter being our first black and white cow.
"We then disposed of our grade herd and bought all pure bred Holsteins. We have made many mistakes since, but in spite of all bad judgment, failure and mistakes, we think we are very much nearer a herd with a 14,000 pound average with our pure bred than we were a 7,000 pound average with our grades. Naturally, we take better care of our cows, and this can be traced directly to the cow testing association. Each succeeding year we have tried to do better. Our cows are practically all entered in the Record of Performance, and in 1915 they produced milk as follows:

No.	Lbs. milk.	Age.
No. 1	9,115	1 1/2 years
No. 2	7,239.4	20 months
No. 3	13,372.4	35 months
No. 4	9,216.7	22 months
No. 5	14,459.9	6 years
No. 6	10,178.8	26 months
No. 7	11,572.1	28 months
No. 8	6,396.3	28 months
No. 9	9,117	36 months
No. 10	9,527	6 years
No. 11	7,972.4	36 months
No. 12	12,347.9	5 years
No. 13	11,454.2	34 months
No. 14	8,108	27 months
No. 15	10,884.2	27 months

Two others were milked, but were not entered in the R.O.P. as they were out of condition. One, a 25 months old heifer, had a very large calf; she was not able to stand on her feet for nearly a week, and we raised her with a tackle for a milk. In this we erred, as she would have had a better showing than some of the others we had entered. The other was an old cow that had sore feet (foot rot) for some time, had twins and also retained her afterbirth. We recognize that there are no world records in this showing, but they did not get world record attention; in fact, I know of grade dairy herds that are better than the other hand on the other side of the world. We have every reason in believing that this herd will raise an average to close to 14,000 lbs. during the next few years.

My Experience in Alfalfa Surgery

By J. E. Gustus.

TO plunge a spring-tongue cultivator into a field of luxuriant alfalfa when the growth has attained a height of six inches, is a surgical operation that requires considerable nerve and determination. The friends of alfalfa in Canada are now almost legion, but how few of them would not throw up their hands in horror at the sight of a spring-tongue cultivator, sinking its tiny little shovels into such a sacred field, to all intents and purposes tearing out everything growing upon it. To the beginner in alfalfa culture, such violent treatment will no doubt seem little short of criminal, and he will probably conclude that the result is a dead alfalfa field, roots and all.

Let Us Listen to Science, Please.

Alfalfa success is by no means accomplished by a go-as-you-please, hit-or-miss method, and anyone pursuing that course, indifferent to the Light Science has recently thrown upon the plant's culture, is quite certain to meet disappointment sooner or later. Of course, failure like this is quickly charged up against the plant as being too tender for our climatic conditions, whereas it is positively certain that, given hardy strains of alfalfa, our climate and soils are well adapted to its successful culture, even when planted in non-irrigable lands. Certain conditions may require the

grower of alfalfa to administer rather severe treatment to his field. Such treatment may be termed Alfalfa Surgery. If the surface of an established alfalfa field shows a hard and compact surface, because of a 1/2 inch mat of soil, for any other reason, science informs us that such a condition tends to materially retard the growth of the plants. It renders it impossible for the little bacteria to gather their food, atmospheric nitrogen, hence they soon disappear and the growth of the alfalfa is quickly checked. It was in this condition the writer found one of his pretty alfalfa fields last spring. Much of the field, which comprises about twenty acres, was so dry and hard that assurances had been made that the result that a lead pencil could be dropped into them. Last year this field yielded two cuttings of as fine fodder as can be made anywhere. At the time of harvesting the first crop, a slimy little weed of the sage family, as well as a few small tufts of fine, short grass made their debut into the compacted field. The weed did not reduce the value of the luxuriant crop, except that it could not be sold as pure No. 1 alfalfa. After during the twenty acres, was so dry and hard that assurances had been made that the result that a lead pencil could be dropped into them. Last year this field yielded two cuttings of as fine fodder as can be made anywhere. At the time of harvesting the first crop, a slimy little weed of the sage family, as well as a few small tufts of fine, short grass made their debut into the compacted field. The weed did not reduce the value of the luxuriant crop, except that it could not be sold as pure No. 1 alfalfa. After during the

(Continued on page 34)

Barrett Money Savers for Farmers

Practical Parables

A FARMER went forth to inspect his farm. It was near the end of his fiscal year and albeit he thought he had left nothing undone he found that things were not as should be. His stock was lean, nervous and not yielding good profits. His fences were straggling and ready to fall, having rotted in the posts. His harrow and certain expensive implements were rusted for he had not painted them. His barn admitted water at the gutters and likewise his own home, and that of his poultry. And the little were in sore need of repair. And even more so, the roofs on his many buildings which had cost much gold and labor, were not attractive nor yet durable. So the farmer was exceeding down cast. And it came to pass that a more successful neighbor came unto him and said:



"A LARGE part of my profits are due to watching the little for instance. No farmer should be without it. It has all the merits of carbolic acid without the danger. Effective in a hundred different places. If you cut your hand, apply Carbolic in solution. If your live stock get bruised, Carbolic will fix them. It disinfects sick rooms, and makes house cleaning easier. Begin to economize today by buying Carbolic."

A LEAKY roof means more than incoming water. It means outgoing money, no repairs or damage. Begin right with Amstite, the ready roofing that needs no painting. It fits in on your steep roofs and slings. Wind, rain and weather can't hurt Amstite. Its sparkling mineral surface improves the appearance of any building and guarantees durability. Made in Canada. It is easily laid and makes horse cleaning easier. Easily laid without skilled labor. I ended my roofing troubles with Amstite.

"THE greatest enemies to live stock and poultry are lice, mites, vermin and flies. I keep my live stock clean and happy by spraying them with Greonoid, and I spray my roosts regularly. It is the most economical and effective animal antiseptic I have ever seen, and I've tried them all. All you have to do is spray your stock once or twice and that pests will go away, leaving your hens, cows, pigs and horses healthy and happy. Be sure to follow directions carefully. There are many other valuable uses for Greonoid and you had better ask them to send you their booklet on the subject. Don't delay when the solution of your problem is so easy.



I USED to help the Farm Machinery Company pay dividends until I was advised to try Everjet Elastic Paint. You see metal seldom wears out; it rusts out and Everjet positively prevents rust. It never peels, scales or cracks. There is no more merit in Everjet than I can tell you of. Everjet is especially recommended for use on "ready roofs" because of its low price and great covering capacity. Protect your roofs and machinery with Everjet.



"YOUR wooden fences would have been good for twenty years if you had painted the buried parts of the posts with a good wood preservative. Why not do it now? Get some of Barrett's Grade One Creosote Oil. Tests have shown that it is the best wood preservative and lasts longer than any other. You can't beat creosote for insuring the life of the wood. Barrett's is the best creosote.



If YOU are not satisfied with your roofs, or want a covering that will keep wind and water off permanently, at low cost, you should try Everlastic Roofing. There is no better Rubber Roofing on the market. It is inexpensive, easy to lay and gives excellent service for years. Just the thing for outbuildings. Made in one, two and three ply weights. The rolls are 36 inches wide. You need some Everlastic Roofing.



"THIS sheet is a product you ought to have just on general principles. As an aid in your repairs, it is a good thing to have on hand. It is a genuine, weather-resistant material. Just the thing to join and repair buildings around chimneys."

Send for illustrated booklet describing Barrett Money Savers in detail. Address nearest office.
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 Years from now this Bull and Sile will be giving good service. It is built with wood preservative, that prevents decay. It has strong rigid walls, air-tight doors and hoops of bent iron. Therefore it lasts, simply because it can't very well rot anything else. Our little explains more fully—write Dept. E. ELORA, ONT., Y. E. BISELL CO., Ltd.



London "Bell Dog" Hand Truck
 Pays for itself in 10 days, built to last a lifetime. Sent for catalogue to Dept. E. Elora, Ont. Largest Manufacturers of Hand Trucks in Canada.

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We have made arrangements with progressive breeders of pure bred dairy stock by which they are to supply us with

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These breeders guarantee that the calves they supply will be big, strong, try fellows of good breeding and from high producing cows. Their breeding is guaranteed and pedigree papers will be furnished with each one. They will be a credit to the breed and eligible for registration. These breeders have been supplying us in the past and we vouch for their reliability.

Do
You
Want
One
Like
Him



He
Will
Grow
Into a
Money
Maker

This is an opportunity for you to get a start as a breeder of pure-bred live stock. To become a breeder will add zest to all your farming operations. The best farmers keep pure-bred live stock. If you want to become one of the leading farmers in your district you must get into pure live stock breeding. You will find it intensely interesting and profitable as well. Begin by winning one of these excellent calves. You can secure one by sending us a club of

TWENTY-FIVE NEW SUBSCRIBERS TO FARM & DAIRY

at \$1.00 each. Write to-day for full information, literature and supplies. You will be surprised to find how easy it is to win one of these calves.

We have also made arrangements with several well-known swine breeders to supply us with

EITHER SEX Pure Bred Pigs ANY BREED

Of all our premiums, these have proved to be the most popular with our boy readers. If you want to secure one of these pigs just pick out the breed you prefer and write for full particulars. As soon as you win one, we will order him for you from a reliable breeder who will ship direct, sending the pedigree papers. Within a few months you will have a full grown pure bred pig that will be a source of constant revenue.

Our
Boy
Reader's
Favorite
Premium

Hundreds
of Them
Have
Secured
One

Scores of our boy readers have secured pigs from us, and the letters which they write indicate to us how popular these Premiums are. Here is what one of them says: "Just a line to let you know that I received my pure-bred Berkshire Sow, and that I am well pleased with her. She is indeed an excellent pig." Another writes: "I am well pleased with the pig, and am sure that he is getting along like those who have seen him say he is a dandy, and wish they had one like him." For only

NINE NEW SUBSCRIBERS

we will send a pure-bred pig, either sex, and of any of the common breeds. Write to-day for full particulars.

CIRCULATION DEPARTMENT
Farm & Dairy Peterboro, Ont.

HORTICULTURE

Clean Potatoes for Seed

W. A. McCubbin,

Dominion Field Laboratory of Plant Pathology, St. Catharines, Ont.

BEGINNING with the seed we may summarize the various operations that might be used to grow a clean crop of potatoes, either for seed or otherwise.

(1) Pick over the seed, discarding tubers which show dry rot, purplish discolorations (these are likely to be dormant late blight), scab and other suspicious features.

(2) Soak the seed in corrosive sublimate, one pound in 200 gallons of water, for three hours. Spread out to dry, and when dry cut up into sets. This treatment frees the tubers from scab, rhizoctonia, dry rot spores, etc.

(3) In cutting sets first take a slice off the stem cut. Wilt and blackleg will show here as discolorations, and these diseases can be practically all eliminated at this stage of the work.

(4) Plant in as clean a soil as possible, preferably an acid soil that has had no potatoes in it for several years; where possible use commercial fertilizers instead of barnyard manure.

(5) Spray well three or four times with Bordeaux mixture, beginning about the first of July. This will protect from early and late blights.

(6) "Rough" the field during the summer at least once, and preferably twice. This is usually done in any case to eliminate plants of other varieties, and this work may be extended to include the removal of all cases of leaf roll, early dwarf, blackleg, mosaic, and spindle sprout.

(7) For formulas and detailed instruction regarding the sprays and chemicals to be used consult the bulletins of the Central Experimental Farm, Ottawa, and those of the Ontario Agricultural College, Guelph.

We in Ontario are as yet remarkably free from a great number of diseases of the potato that are serious in other parts of the world, and it should be our aim to keep free from them by the methods to be described rather than be compelled later on to adopt costly and complicated methods for their control.

Flowers Easily Grown

Thos. Jackson, M.A.L., Winnipeg.

IF there is one flower above all others that finds favor with the lover of flowers, it is the sweet pea.

The place that I would suggest to sow sweet peas would be along the fence, if there is one. Any place in the back ground if it is in a good open position where they will get lots of sunlight will do, because they will grow five or six feet in height. Draw out your trench two or three inches deep with the hoe. Do not sow too thickly, and cover them up with about an inch of soil firmly packed. When the seeds have grown about three inches above the soil it is time to put in something for them to climb on. Nothing beats brush, cut out of the bush about the height the peas will likely grow. Get a mixture of sweet pea seed, if you only have a short row, so you may have in that row a great variety of color. No flower gives so much cut bloom at so little cost and trouble as the sweet pea.

Mignonette.

The best place for mignonette is around the outer edge of the flower bed or along the front of a border. Wherever the place may be, have it well to the front, as it does not grow very tall. Mignonette seed requires

only to be covered to a slight depth, say about one-eighth of an inch, having the soil covering the seed pressed firmly down. It is important to thin them out early and severely, for one plant left alone will cover a square foot of ground. Mignonette does not transplant well.

Dwarf Nasturtium.

Dwarf nasturtiums also should be sown well to the front of the bed or border, as they only attain about a foot in height. We get best results with nasturtiums on poor soil; that is, we get more bloom than when planted in rich soil, as they are liable to grow more into foliage. Cover the seeds with about one inch of soil firmly packed.

Climbing nasturtiums should be treated in much the same way as the dwarf varieties, but should be placed in a different position. If you happen to have some old tree roots, pile them up together and sow the nasturtiums all around them, and you will be surprised to see how soon they will cover them, and give you a great display of flowers. If you have any loose stones lying about the place, pile them up in a heap together, and they will soon have the same effect on them. Any unsightly fence or object may be converted into a beauty spot by the use of nasturtiums.

Sweet Alyssum.

There are two kinds of sweet alyssum, the tall and the dwarf, the latter being the better, especially if you want it to grow around the extreme edge of your flower bed. It only grows about three inches in height but very dense, with one mass of white flowers. Cover the seeds to a very slight depth, one-eighth of an inch is about right.

The Growing of Timber

FEW city parks afford such a beautiful walk as any may take on the farm of F. L. Green, Ontario Co., Ont. Mr. Green has a beautiful grove. "If all farmers were as cautious about cutting down a tree as I am," he remarked to an editor of Farm and Dairy who called on him last spring, "there would be more beauty spots on our farms."

The editor being of a practical turn of mind asked, "Does it pay?" "It pays in satisfaction," answered Mr. Green, "and we have the two additional profits besides. Standing timber is always increasing in value, first by its growth and secondly by the increase in prices that we must pay for timber. I believe that these two profits are sufficient to pay the rest of the land."

As a result of his belief and his practice, Mr. Green has a park right on his own farm.

Why Not Evergreens?

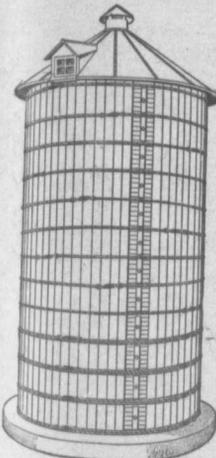
EVERGREENS for ornamental purposes and shelter belts have been sadly neglected in planning around farm homes; and yet there is not a farm home anywhere that could not be made more attractive and more comfortable by the judicious distribution of a few evergreens. The best test of the evergreen comes on the cold winter day, when the freezing winds tear through the branches of deciduous trees until they come to a sudden halt at the shelter belt of low green cedar or spruce.

Deciduous trees are more showy in summer. The evergreen is decidedly more cozy and comfortable in winter, both physically and aesthetically. The evergreen is easy to grow, and now is the time to plant it. All that is necessary once they are planted is to keep away from them until they have attained a good size. In planting a few for beauty, add a good shelter belt to the west or north, reduce the coal bills, and make chores more comfortable.—F. E. E.

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Scientific Soil Feeding

ALL crops remove fertility from the soil, even clover and alfalfa, which are heavy feeders on the mineral elements. Legumes, like clover, can gather nitrogen from the air by means of organisms in nodules on their roots; but this fixed nitrogen is removed in the hay and no increase, therefore, is made in the manure. When the hay is fed and the manure is well cared for and returned to the soil, the nitrogen gathered from the air is brought back, but only about 60 per cent of it; the rest is lost in feeding transaction. Feeding large amounts of clover and alfalfa hay, therefore, will increase the nitrogen content of the soil on the farm. The phosphorus content can never be increased or maintained by growing crops, feeding them and returning the manure. In the feeding transaction there is approximately 20 per cent loss of this element. Little potassium is lost when best of care is given the manure and all straw is used for bedding.

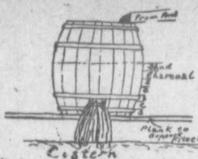
The soil may be given its nitrogen and humus through the growing and feeding of legumes. Any feeds purchased will also help. The phosphorus that is lost must be replaced by purchase, either through commercial fertilizer or feeds like bran or cotton-seed meal. Approximately 27 pounds of phosphorus is removed by a 50-bushel corn, a 30-bushel oat, and a two-ton clover crop in a three-year rotation. Ten tons of manure will return approximately 20 pounds. The deficiency may be made up by adding about 50 pounds of rock phosphate or 100 pounds of acid phosphate, or by feeding one-third of a ton of bran or cotton-seed meal during the production of these ten tons of manure.

It is good business to keep accounts, and it is good farming to consider the losses in case of fertility on the farm. The basis of good crops is fertile soil, and a fertile soil is dependent largely upon good stock of humus and a plentiful supply of available plant-food elements it contains.

Cistern Pointers

A NEAR neighbor is having trouble with his cistern. The water has a pronounced odor. It is unpleasant to wash in, and unfit for household use. As our cistern has always given the best of satisfaction, this neighbor asked me to go over and inspect his and tell him what was wrong. I found that two points explained the bad quality of water from his cistern. In the first place, the water was not filtered into the cistern and there was no ventilation for the surface of the water. I have heard the cistern filter objected to on the grounds that it may become clogged with dirt and actually foul pure rain water that goes through it. For my own part, I would just as leave have the dirt in the filter as in the cistern itself. If the filter does become foul, however, it is due to the carelessness of the operator. My own filter is made of alternate layers of charcoal and clean sand. Both materials are cheap and may be renewed so frequently that there is absolutely no danger of fouling the water.

The construction of our filter is made plain by the accompanying diagram. In the first place, the filter must be of large enough size to let the rain water through as fast as it comes off the roof, or there must be a receptacle above the filter large enough to hold all the water that is apt to be brought to it at one time. It will be noticed that my filter is just an ordinary good floor barrel, and that the water is not in the bottom of the barrel, but on either side, as there is less chance of impurities being carried out the side than direct down through the bottom.



The holes on either side are which covered with fine screen wiring, which will hold any ordinary coarse sand. They are eight inches square, or two wide staves cut out for a space of eight inches. This barrel is filled only half full of charcoal and sand, and it is large enough to let water through as rapidly as it comes from a small sized roof.

Another successful filter that I have

seen is made by having the cistern larger than necessary to meet all the requirements of the family, and having one end bricked off with rough, porous brick, laid in with a very coarse cement mixture. The water comes from the roof into the first section of the cistern, and gradually seeps through the brick wall into the second section, where the pump is located. Occasionally the bricks will have to be cleaned off. This is an excellent system of filtration.

Many cistern operators close the cistern air tight, with the idea of keeping out insects. This is a mistake, as there should always be a draft of air over the surface of the water in the cistern to keep it pure. Insects may be kept out by the use of muslin curtains. If both filtration and ventilation are attended to, cistern water will be alive and sparkling and in a pinch good enough for drinking.—C. L.

Get a Frost & Wood Mower

Hay - Time is Money Time on the Farm

Use a cranky, wasteful out-of-date mower and you may throw away a whole season's hay. These are the days for efficiency. Make a wise expenditure for a Frost & Wood Mower, and you save in crop, in horse flesh, in time, in money.



Frost and Wood Mower Cuts Any Crop

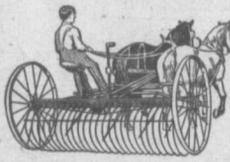
It won't fail you. It's a light draft machine. The splendid roller bearings and easily controlled levers eliminate friction and make it easy for a boy or girl to use. Immensely strong, with heavy brass bushings where wear is greatest. Heavy angle. Knife guards are high-grade tough malleable iron. The F. & W. is a splendid, serviceable mower, always ready for hard work, even with "green" help.

Space prevents reference to the many splendid features of the Frost & Wood Mower, but the "Internal driving rear" as shown here must be mentioned. The driving gears are meshed on the inside of the main drive - travel in same direction - means big life to the machine.



tion—no tendency to fly apart, or to snap catch—no loosening or rattling of parts and connections, and the knives begin to cut at the first step of the horses. This means internal gear quicker work and longer drive means big life to the machine. power.

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My Experience in Alfalfa Surgery

(Continued from page 31.)

emptive right of the alfalfa over certain small areas. The second crop been injured the slightest way by cured, rich and green in color, that it seemed almost fit for human consumption.

Cultivate, Aerate and Exterminate.
Observing that the little sage weed, which botanists say belongs to the Labiate family, presented itself again last spring, its extermination was quickly and definitely decided upon. Owing to the hardness of the field's surface and the fact that the little weed had come through the winter and again wished to "bite on the land," it was decided to give the whole field radical treatment, and, knowing the effectiveness of the Messer-Harris springtooth cultivator, which I and thousands of others doubtless consider one of the best implements for use on a farm, that tool was selected with which to do the double work and did it to perfection, as will be seen later.

His Nerve Failed Him.

When the hour for performance struck, the nerve of the man to whom the work of cultivating the field had been assigned suddenly failed him and with husky voice he said: "To stick this cultivator into this beautiful alfalfa field will kill it as sure as fate, and if you will only excuse me from doing the job, I am more than willing to do anything else about the place; I just can't stand to see that alfalfa torn out, because it almost makes me feel as if those little teal teeth were tearing my heart out, and I can't stand the sight of anything like that." So, rather than have a valued man go on strike, I mounted the seventeen-shovel cultivator, lowered the lever and permitted the little shovels to sink into the earth as deeply as they would, from the weight and pressure of their springs and frames, which was more than four inches, I am sure.

Right here it is proper to explain that this cultivator had been in use on my farm during several seasons, doing work of most excellent quality, but never before had it been used in an alfalfa field. Through rather severe usage in ground which was not wholly free from stones and gravel, its little shovels had become quite blunt, the points and corners having been worn off to such an extent that they could not possibly damage the alfalfa. Then, too, the action of the springs enabled the little steel blades to slip by the roots of the plants without doing them the slightest injury. Had the teeth of my cultivator been sharp, as they were when new, my alfalfa would have been torn to shreds, as my man implicitly believed they would. Now, however, they were dull and blunt, devoid of points and corners, hence they tore out the weeds, aerated the soil and cultivated the field to my entire satisfaction.

Everything But the Alfalfa Was Gone.

The following day dawned bright and beautiful, yes, serenely so. A light shower had fallen in a beneficent deluge during the night, and, despite loud protests from faint-hearted friends and well-wishers, four sturdy horses were again hitched to the forward cultivator, and the work of the previous day resumed. "God-od, there, Panny, Dick, Harry and Pete," and the little steel shovels again sank deeply into the innocent-looking alfalfa, mercilessly tearing out the shallow-rooted weeds and tiny tufts of grass. This destruction (alfalfa surgery I term it) was as pleasing to me as the sight of the luxuriant crop which fell over the mower-barr the previous year. I had not discovered for the second day the field I had previously cultivated seemed much greener, stronger, and happier than ever before—certainly much more so than on the field I had not yet "surgeonized." Of course, it

goes without saying that I was overjoyed that my dear alfalfa had not been injured the slightest way by the ordeal to which it had been subjected, but on the contrary, it had been much improved, and its growth materially stimulated by the harsh treatment administered to it. Not only did it appear to be thrifter and stronger, but had evidently made perceptible growth during the intervening night. Such a result was not only cultivation, cruel as it seemed at the time, had done it a "world of good," and everything in the field but the alfalfa was gone. My "surgeonizing" of the field was continued until it had been gone over once, when I was so well pleased with the result that I re-cultivated it also, this time sinking the shovels into the ground a little deeper. To make sure that every vestige of grass and weeds should for ever be exterminated, and to cease to crowd and annoy my alfalfa, the whole field was then treated to a harrowing, the teeth of that implement being set to do their most effective work.

My Alfalfa is now Growing Lightly.

That my alfalfa is now making very rapid growth goes without saying, the field being put into pink condition. At this date (June 18th), the alfalfa stands knee high and is dark-green in color, which every lover of the plant knows to be the sign of a bumper crop of this world's best and most valuable fodder. I am fully convinced that cultivation of alfalfa fields, at least under certain conditions, is a most important factor in its successful production. It must be borne in mind, however, that treatment so radical and effective is not to be undertaken until the plant is well established, certainly not until after the second winter has passed. At such times the root system of the plant is so well grounded that, given the proper implement to use, cultivation may be entered upon without fear or trembling. But it requires nerve and good judgment, and an implement that will do it no harm. And such is the springtooth cultivator, if its teeth are dull and blunt.

CLOVER SEEDS

Government Standard	Per Bus.
No. 1 Red Clover	\$16.00
" 2 Red Clover	15.00
" 1 Alsike	12.50
" 2 Alsike	11.00
" 1 Alfalfa (Northern Crown)	16.00
" 2 Timothy	5.50
(This seed grades No. 1 for Purity)	
" 3 Timothy	5.00
White Blossom	13.00

Clover 13.00
O.A.C. No. 72 Oats at ... \$0.85
Marquis Spreading Wheat at ... 1.25
O.A.C. No. 21 Barley at ... 1.25
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passed by Secretary Stephen within the last few months.

The following officers were elected: President, Arch Chabot, Humberford; Vice-President, Geo. Bustard, Humberford; Vice-President, Geo. W. Bustard, Humberford; Treasurer, Fred Snow, Humberford; Secretary, J. W. Bustard, Humberford; Inspectors—A. T. Humberford, J. C. McCarty, C. A. Burnett, A. T. Humberford, all of Humberford, and Donald Wolf, Sodus.

SALE DATES CLAIMED.

Annual sale of Holsteins at Avondale Park, Brockville, May 17.

Brockville District Club, sale of Holsteins, about 75 head, May 18. G. A. Gilroy, secretary.

Annual sale of pure-bred Holsteins of G. R. Ryan and H. McCauley, on Wednesday, May 10, on Lot 13, Con. 2, three miles east of Humberburg. Twenty-four head are included in the sale.

Canadian dispersion sale of the Lake Marie Farm herd of Sir Henry Peabody to be held Thursday, May 11. The entire herd of 10 head goes under the hammer.

Dispersion sale of pure-bred Holsteins owned by Wm. Sharkey, Smiley, Ont., on May 1st.

CUMMINGS BROS.' SALE OF AYR-SHIPPERS.

CUMMINGS BROS., of Lancaster, Ont., disposed of 31 head of Ayrshire, mainly yearling bulls and heifers and bull and heifer calves at fair prices on April 26. Auctioneer, John, of Humberburg, was officiating. The Messrs. Cummings were short of stock and took this sale to dispose of their surplus. They have a grand business herd, and the collection sold, nearly all went into the hands of new breeders. The 31 youngsters brought \$11,461.00, an average of about \$370.—W. P. S.

THE ORNSTOWN SPRING SHOW.

The directors of the Ornstown Spring Show have let contracts for five new cattle sheds, four horse barns and one sheep and swine building, all to be completed for the coming show to be held on June 8, 9 and 10. The judges appointed by the Government for this show are: Wm. Gibbons, Chatham, Ont., on heavy horses; Mgha Barnes, Dr. J. A. Sainsbury, Kingston, Ont.; J. G. Jones, Alfred Mills, Huron, Ont.; Holsteins, P. H. Mackery, Frontenac, Ont.; Jerseys, St. Albans, Ont.; Swine, John Miller, Ashburn, Ont.; poultry, W. H. Reed, Kingston, Ont.

With more and better accommodation for stock and an increase of \$2,500 in the prize list, the directors are anxious for the largest and best show ever held in Ornstown.—W. O. McGerrige, Sec.-Treas.

HOLSTEIN-FRISIAN NEWS

Farms and Dairy is the leading exponent of dairymen in Canada. The great majority of the members of the Canadian Holstein-Frisian Association are readers of the paper. Members of the Association are invited to send their interest to Holstein breeders for publication in this column.

OFFICIAL RECORDS OF HOLSTEIN-FRISIAN COWS, FROM APR. 1 TO APR. 15, 1916.

- Mature Cows, Over 27 lbs. Butte.
- 1. Lakewood Baitler, 1184, 3y. 2m. 24d.; 75.14 lbs. milk, 23.03 lbs. fat, 37.54 lbs. butter. Lakewood Farm, Stroud.
 - 2. Hosseline, 2214, 3y. 1m. 20d.; 68.8 lbs. milk, 24.62 lbs. fat, 30.79 lbs. butter. Ashton Somers, Villa Nova.
 - 3. Lakewood Queen, 1269, 3y. 1m. 6d.; 66.0 lbs. milk, 23.55 lbs. fat, 38.89 lbs. butter. Lakewood Farm.
 - 4. Trenton Green, 5036, 3y. 1m. 2d.; 64.1 lbs. milk, 23.06 lbs. fat, 37.81 lbs. butter. B. Malloy, Belleville.
 - 5. Neop Darling, 484, 1y. 6m. 26d.; 61.87 lbs. milk, 23.16 lbs. fat, 37.68 lbs. butter. Ashton Somers.
 - 6. Daisy DeLac of Riverside, 11024, 2y. 3m. 4d.; 62.3 lbs. milk, 21.79 lbs. fat, 37.25 lbs. butter.
 - 7. 14-day record, 3y. 2m. 4d.; 532.0 lbs. milk, 42.32 lbs. fat, 52.31 lbs. butter. J. W. Richardson, Waterloo.
- 3y. Four-Year Class, Over 22 lbs. Sr. 1. Plus Pontiac Artie, 1979, 3y. 1m. 2d.; 56.7 lbs. milk, 21.34 lbs. fat, 31.86 lbs. milk, 10.29 lbs. fat, 36.51 lbs. butter. Samuel Lenon, London.
2. Princess of Wellesley 2nd, 2167, 3y. 1m. 3d.; 480.7 lbs. milk, 37.48 lbs. fat, 37.19 lbs. butter. Geo. Rankin, Ingersoll.
- 3y. Four-Year Class, Over 21 lbs. Sr. 1. Plus Pontiac Artie, 1979, 3y. 1m. 2d.; 56.7 lbs. milk, 21.34 lbs. fat, 31.86 lbs. milk, 10.29 lbs. fat, 36.51 lbs. butter. W. A. Shaw, Fosbury.
- 2y. Three-Year Class, Over 20 lbs. Sr. 1. Plus Pontiac Artie, 1979, 3y. 1m. 2d.; 56.7 lbs. milk, 21.34 lbs. fat, 31.86 lbs. milk, 10.29 lbs. fat, 36.51 lbs. butter. W. A. Shaw, Fosbury.
- 2y. Three-Year Class, Over 15 lbs. Sr. 1. Daisy May Lacie, 2878, 3y. 1m. 1d.; 45.2 lbs. milk, 15.11 lbs. fat, 18.47 lbs. butter. E. C. Chambers, Hatchley.
2. Grace Henservold DeLac, 2872, 2y. 1m. 6d.; 45.7 lbs. milk, 14.09 lbs. fat, 18.17 lbs. butter. Edward Baker, Winchester.
3. Columbia Mercedo Alca, 2987, 2y. 1m. 1d.; 42.1 lbs. milk, 12.47 lbs. fat, 15.54 lbs. butter. The Wood, Mitchell.
4. Nettie Wainman, 397, 2y. 1m. 1d.; 40.4 lbs. milk, 12.01 lbs. fat, 16.02 lbs. butter. M. L. Hester, Springfield.
- 3y. Two-Year Class, Over 15 lbs. Sr. 1. Time Butte Girl Johanna, 5189, 2y. 1m. 18d.; 35.0 lbs. milk, 14.32 lbs. fat, 18.83 lbs. butter. Bobt. Shadlington, Hatchley Stn.
2. Hourie Johanna Pet, 2156, 2y. 1m. 10d.; 37.5 lbs. milk, 13.77 lbs. fat, 15.21 lbs. butter. Robt. Shadlington.
3. Fairmont Pontiac Maid, 2102, 2y. 1m. 5d.; 37.6 lbs. milk, 12.16 lbs. fat, 16.46 lbs. butter.
- 12-day record, 3y. 1m. 3d.; 856.5 lbs. milk, 21.84 lbs. fat, 27.80 lbs. butter. Peter S. Arbogast, Mitchell.
4. Adolphe Schelling Foch, 11624, 2y. 1m. 2d.; 31.9 lbs. milk, 13.49 lbs. fat, 16.36 lbs. butter. J. W. Richardson.
5. Fairmont Heald Walker, 2107, 2y. 1m. 2d.; 32.4 lbs. milk, 12.36 lbs. fat, 15.46 lbs. butter.
- 15-day record, 3y. 1m. 23d.; 743.5 lbs. milk, 21.21 lbs. fat, 22.89 lbs. butter. Peter S. Arbogast, Mitchell.
6. Axie Cobanah Ormsby, 3565, 2y. 1m. 21d.; 31.5 lbs. milk, 12.28 lbs. fat, 16.36 lbs. butter. Geo. Rankin, Ingersoll.
- During the first half of April, the

56.4; 676.6 lbs. milk, 18.21 lbs. fat, 23.14 lbs. butter.

15-day record, 3y. 1m. 25d.; 1,217.7 lbs. milk, 36.69 lbs. fat, 44.49 lbs. butter. A. D. Foster, Humberford.

2. Grace Foch, 2810, 2y. 1m. 2d.; 50.2 lbs. milk, 18.05 lbs. fat, 20.95 lbs. butter. E. C. Chambers, Hatchley Stn.

3y. Three-Year Class.

1. Elizabeth Korodko Tania, 3102, 2y. 3m. 4d.; 406.5 lbs. milk, 18.42 lbs. fat, 23.83 lbs. butter.

10-day record, 3y. 2m. 7d.; 798.2 lbs. milk, 25.12 lbs. fat, 45.30 lbs. butter. E. S. Baker, Goddard.

2. Lorna Scott Alsop Foch, 2476, 2y. 1m. 1d.; 47.6 lbs. milk, 17.75 lbs. fat, 22.19 lbs. butter.

15-day record, 3y. 1m. 6d.; 909.8 lbs. milk, 33.59 lbs. fat, 41.99 lbs. butter. Allison Brock, Cheshamville.

3. Riverside Lyons Ink, 2742, 2y. 1m. 1d.; 348.7 lbs. milk, 17.69 lbs. fat, 22.12 lbs. butter. Allison Brock.

Sr. Two-Year Class, Over 15 lbs.

1. Daisy May Lacie, 2878, 3y. 1m. 1d.; 45.2 lbs. milk, 15.11 lbs. fat, 18.47 lbs. butter. E. C. Chambers, Hatchley.

2. Grace Henservold DeLac, 2872, 2y. 1m. 6d.; 45.7 lbs. milk, 14.09 lbs. fat, 18.17 lbs. butter. Edward Baker, Winchester.

3. Columbia Mercedo Alca, 2987, 2y. 1m. 1d.; 42.1 lbs. milk, 12.47 lbs. fat, 15.54 lbs. butter. The Wood, Mitchell.

4. Nettie Wainman, 397, 2y. 1m. 1d.; 40.4 lbs. milk, 12.01 lbs. fat, 16.02 lbs. butter. M. L. Hester, Springfield.

3y. Two-Year Class, Over 15 lbs.

1. Time Butte Girl Johanna, 5189, 2y. 1m. 18d.; 35.0 lbs. milk, 14.32 lbs. fat, 18.83 lbs. butter. Bobt. Shadlington, Hatchley Stn.

2. Hourie Johanna Pet, 2156, 2y. 1m. 10d.; 37.5 lbs. milk, 13.77 lbs. fat, 15.21 lbs. butter. Robt. Shadlington.

3. Fairmont Pontiac Maid, 2102, 2y. 1m. 5d.; 37.6 lbs. milk, 12.16 lbs. fat, 16.46 lbs. butter.

12-day record, 3y. 1m. 3d.; 856.5 lbs. milk, 21.84 lbs. fat, 27.80 lbs. butter. Peter S. Arbogast, Mitchell.

4. Adolphe Schelling Foch, 11624, 2y. 1m. 2d.; 31.9 lbs. milk, 13.49 lbs. fat, 16.36 lbs. butter. J. W. Richardson.

5. Fairmont Heald Walker, 2107, 2y. 1m. 2d.; 32.4 lbs. milk, 12.36 lbs. fat, 15.46 lbs. butter.

15-day record, 3y. 1m. 23d.; 743.5 lbs. milk, 21.21 lbs. fat, 22.89 lbs. butter. Peter S. Arbogast, Mitchell.

6. Axie Cobanah Ormsby, 3565, 2y. 1m. 21d.; 31.5 lbs. milk, 12.28 lbs. fat, 16.36 lbs. butter. Geo. Rankin, Ingersoll.

During the first half of April, the

corde of 17 cows and heifers were received and accepted for record in the Record of Merit. In the sale for mature cows, Lakeview Farm established a new record for 75 lbs. milk, 23.14 lbs. fat, with 27.54 with 20.78 lbs. fat. The milk, 23.14 lbs. fat, 27.54 lbs. butter. The milk, 23.14 lbs. fat, 27.54 lbs. butter. The milk, 23.14 lbs. fat, 27.54 lbs. butter.

W. A. CLEMONS, Secretary.

W. M. J. BALD'S DISPERSION SALE.

THE dispersion sale of Mr. W. J. Bald, Mitchell, Ont., on April 21, was a large and the bidding brisk. Most of the animals offered were young, yet Mr. Bald offered. The following is a list of animals:

Cows 4 yrs. old and over—Maple Grove Lina, 120, R. S. Oliver, St. Mary's; Peter Smith, Stratford; Karua Abbecker, 1145, J. H. Bacon, St. Mary's; Abbecker 2nd, 1270, H. Thistle, St. Mary's; Gladys Bortez, Artie, Foch, 839, Abbotson Bros., Springville, Ont.; Landa, Henservold Keyer, 436, C. Butler, Tavistock.

Heifers 2 and 3 yrs. old—Pontiac Korodko Gladys, 2265, E. Rutherford, Stratford.

Heifers under 2 yrs. old—Corantha Maple Front Lina, 1145, H. Bolter; Emma Merceus, 170, J. E. Turner, Carleton Place; Corantha Beauty Abbecker, 1189, P. J. Fitzgibbon, Springville; Karua Abbecker Lada, 1155, H. Hammond, Mitchell; Teakie Cobanah, Abbecker, 1105, Michael Arbogast, Stratford; Karu De Kol Abbecker, 475, H. Hammond, Mitchell; Teakie Cobanah, Abbecker, 1105, Michael Arbogast, Stratford; Karu De Kol Abbecker, 475, H. Hammond, Mitchell.

Bulls over 1 yr. old—Walter Colanor Teakie Cobanah, 1115, Gleason Gil, Russell; Peter De Teakie, 815, J. Knox, Mitchell.

Bulls under 1 yr.—King Segis Alcarita Korodko, 1150, J. E. Turner.

AVONDALE FARM

SECOND ANNUAL PUBLIC SALE OF 70 HEAD

OFFICIAL RECORD LISTED

BROCKVILLE, ONT., MAY 7, 1916

King Pontia Artis
Canada

has 33 tested daughters and several in test, 2 with over 23 lbs., 3 others over 22 lbs. and 15 from 19 to 22 lbs., all as two year olds. There will be 30 daughters of this noble sire offered, all have tested dams and grand dams, one from a 29.90 lb. 4 yr. old daughter of King Pieter and Countess Segis, a 31.7 lb. daughter of King Segis. One full sister to 23 1/4 lb. 2 yr. old from a 28 lb. 4 yr. old dam—a grand one. One 2 yr. old with over 21 lbs.—a Three full sisters from a 23 lb. dam, one as 20.20 as junior 2 yr. old.

May Echo Sylvia

Canada's first 41 lb. cow, who, still in test, has made 41 lbs. butter in seven days, and after 30 days promises to better this. SHE HAS OVER 1,000 LBS. MILK IN SEVEN DAYS. Many of the females offered are bred to sons of this great cow. One was sired by Francis M. Jones' 44 lb. bull, most of the others by King P. A. Canada. This is the only opportunity to get this blood. Be sure to see her grandson by the 44 lb. bull.

Six Daughters of Woodcrest Sir Clyde

who is a son of Pietje 22nd Woodcrest Lad and Alma Clyde (33.06). A 29.12 lb. 6 yr. old show cow with over 100 lbs. milk in one day—one of Canada's ring winners, and bred to May Echo Sylvia's son "CHAMPION." We shall also offer several exceptional young bulls, one extra good one from a 31.70 daughter of King Segis, several grandsons of Prince Henservold Pietje from high record dams.

TERMS

Cash or approved notes at 3 per cent. per annum. Catalogue May 1st. An all day sale, beginning at 10.30. Lunch on the grounds.

A. C. Hardy, Prop.

Brockville, Ont.

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Its Greater Strength---
Its Greater Roominess---
Its Greater Protection---

HAS made a profound impression on the whole country. Farmers and Stock Men everywhere, with the determination to get the utmost in strength, convenience, protection and economy, are this year erecting

PEDLAR'S STEEL BRACE BARNS
"WARDLE PATENT"

STRENGTH? Abundance of it. Unyielding Strength at every point. See those Pedlar "Wardle Patent" Steel Braces set in snug to EVERY post. Notice those double sets of braces, not on some, but EVERY rafter, both at ridge and hip. The Pedlar Barn brings farmers a new realization of dominant strength that means years of greater service.

"George" Steel Shingles, or in 26-gauge "Perfect" Corrugated, Galvanized Iron. Pedlar Shingles lock tight on all four sides into one complete sheet of steel. Wind nor rain cannot get beneath them to rot and decay your roof. The walls are covered with 28-gauge corrugated iron. Many other weather-proof and wear-resisting features and accessories exclusive with the Pedlar Barn.

ROOMINESS? Just see that clear, broad sweep of space from wall to wall and floor to roof. Greater Roominess at every point. Perfect freedom in the hip. Every inch of space conveniently usable. Your hay fork operates in either a hip or in the ridge, as you desire. That's Pedlar roominess.

Think of such advantages as these, and in the face of the few short years an ordinary barn can give! Think of enjoying the Pedlar advantages for generations without the expense of repairs or changes! Think of having these advantages at almost the cost of an ordinary barn!

PROTECTION? Put your confidence in protection such as this. Protection from weather, lightning, fire and decay. Roofed with the big generous size

Ask us now to send you free blue prints and working drawings of how a Pedlar Barn would look and cost in the size you would require it. No obligations. Use the coupon.

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