

Issued Each Week—Only One Dollar A Year

VOL. XXXII.

NUMBER 3

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JANUARY 16

1913



A FARM HOME IN ONE OF THE LIVE AWAKE DAIRY DISTRICTS OF NOVA SCOTIA
Nova Scotia has an area greater than that of Denmark. It has a climate as favorable and a soil that is richer. Denmark produces over \$100,000,000 worth of dairy produce yearly. Nova Scotia does not produce enough butter to supply its own home markets. But Nova Scotians are awakening to the dairy possibilities of their province. Creameries are being established, the number of pure bred herds is steadily increasing and pure bred dairy sires are being widely used. In our illustration may be seen the home and part of the farm buildings of Mr. Chas. Hill, Colchester Co., N. S.

—Photo by an editor of Farm and Dairy.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

LESSONS LEARNED AT THE EXPERIMENTAL UNION MEET

The Best Varieties of Many Farm Crops Tested by Over 5,000 Experimenters in the Last Year. A Summary of Results. Possibilities of the Small Farm. Labor Problem Comes in for Discussion



Let The B-L-K[®] Milk Your Cows!

Save yourself all hand milking; do without the women at the barn to help with milking; be independent of hired men

AND MAKE MORE MONEY

The B-L-K Mechanical Milker is a demonstrated success. It has been in use for several years on leading Canadian Dairy Farms. It is a demonstrated success—not an experiment.

It will pay to have a B-L-K. Milker to do your milking.

Each B-L-K pail milks 2 cows
Costs only \$75 a pail. Complete outfit, power and pump

Costs \$287.90 for Two-Machine Outfit

Write us to send you an estimate of cost for your stable. Remember the B-L-K Milker is a demonstrated success; the price is much less than others.

One of our users milks 100 cows in two hours at an actual saving of \$1,568.00 a year over old cost of hand milking.

We have recently placed B-L-K Mechanical Milkings with two of the best milk dealers of the City of Ottawa. We have a number of users of B-L-K Milkings in Canada, the plants installed are giving Good Satisfaction.

The B-L-K is The Milker for you. Write us to tell you all about it.

D. Derbyshire & Co.

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.

WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

The Most Economical Feed

that a dairy farmer can buy for his cows is

Owl Brand Cotton Seed Meal

Guaranteed to contain 41 per cent. protein. Makes your cows give more milk. Feed 2 to 3 lbs. a cow per day, mixed right on ensilage, or in with other meal ration.

Laid down at your station, all points in Ontario south of G. T. R. line from Ottawa to Ferry Sound, for \$35.00 a ton.

We also offer you choice of a complete line of first-grade Poultry Feeds. On the following staple lines we quote prices per hundred pounds:

Beef Scrap, \$4.00; Blood, Meat, and Bone, \$2.25; Poultry Bone (3 sizes), \$2.25; Ground Oyster Shells, \$1.00; Poultry Grit, .90c.

WE NEVER SLEEP

WE PAY FREIGHT to all Stations in Ontario south and east of Sudbury on 500 lbs. or over.

Write us for prices on Linsseed Oil Cake Meal, Gluten Feed, Feeding Tankage, Etc.

ALLEN & SIRETT, 23 Scott St., TORONTO ONTARIO

It was an optimistic atmosphere that prevailed the various sessions of the Ontario Agricultural and Experimental Union held at Guelph on Tuesday and Wednesday of last week. This organization, composed of ex-students of the Ontario Agricultural College, banded together for the purpose of furthering the experimental work conducted at the college, has met with success far beyond the dreams of its founders. The progress the Union has made, was well summed up by Prof. C. A. Zavits, the secretary, in his report, during the five years of the Union's work, from 1886 to 1890, the average number of experimenters each year was 71. In the five year period from 1906 to 1910 the number was increased to 4,278. Previous to 1886 only students of ex-students were supplied with material for experimental purposes. The great growth of the Union since then has been due largely to permitting all interested agriculturists to take part in the experiments. In 1912 there were 5,027 experimenters in agriculture.

In the last few years the Union has added cooperative work in botany, apiculture, forestry, horticulture, elementary agriculture in the public schools and horticultural work to its list. In his presidential address, F. W. Goble, Woodstock, Ont., urged experimenters to do all in their power to further the work of the college. Millions of dollars, he said, had been added to the wealth of the province through the findings of Prof. Zavits alone. Working in another department, Prof. W. H. Day had demonstrated conclusively, the value of underdrainage. Experimenters could do much to make these findings better known throughout the country. But Mr. Goble did not confine himself to the beaten track of previous presidential addresses. "It would seem unreasonable," said he, "for the farmers' stock to have water bowls and for the wife to carry water." Later in the session this question was discussed by Mr. Nelson Menzies and Prof. H. Day. The latter dismissed the relative merits of hydraulic ram and the gasoline engine for supplying the home with water, and condemned the ram as wasteful where there was not an abundant supply of water. Mr. T. G. Raynor, in discussing the same subject added a new twist to the case when he remarked that "we must have the same conveniences in the country home as in the city home. If we work the boys on the farm we must keep the girls there too."

REPORT OF EXPERIMENTERS

The educational feature of the meet was the annual report on the cooperative experiments by Prof. C. A. Zavits. A summary of professor Zavits' results is given in table form on page three of Farm and Dairy this week. He made particular mention of their experiments with oats. Only three varieties were tested, the Silver Linen, Regenerated Abundance and Lincoln with 50.2, 47.1 and 46.5 bushels of oats per acre respectively. The difference in yield between 50.2 and 47.1 bushels may not seem large, but Prof. Zavits noted that if this difference could be made in the whole oat crop of Ontario it would mean that 9,500,000 more bushels would be harvested each year. Particular mention was made of the Lincoln. This oat, which was the lowest in yield of the three varieties, was highest at Toronto and Winnipeg exhibitions this year and in field crop competitions always

stands high. This is because it makes such an attractive appearance in the field. "Do we want an attractive oat or one that has the feed in it?" asked Prof. Zavits.

Prof. Zavits noted a growing popularity for amur, which, for some years, has surpassed both barley and oats in yield. Buckwheat, the professor noted, has made the greatest progress in increase over Ontario of any grain in the last five years. In speaking of sweet corn of which every farmer should grow some for table use, the speaker mentioned the Golden Bantam as being an exceeding fine, sweet, juicy corn unequalled for flavor. The ears are small, but they are there in greater numbers than in case of the Cory and Evergreen.

A MANGEL ILLUSION DISPELLED
Prof. Zavits contended the alto-gether too prevalent idea that the long red mangel is the most desirable one from the crop production standpoint. In experiments conducted at the college and throughout the province, the Yellow Globe mangel of several years stood considerably ahead of the Long Red and in 1912 the Ideal, a mangel of tankered form, gave the highest yield. Just at this point a member asked the professor what he thought of the sugar mangel. Prof. Zavits answered that the sugar mangel contained eight to 10 per cent. in sugar as compared with five per cent. in the red mangel, and 15 per cent. in the sugar beet, but did not give as large a yield as the mangel.

The highest yielding fodder corn did not prove the most popular. The White Cap Yellow Dent which was third in yield with 17.96 tons per acre as compared with 17.29 tons of the very Early Yellow Dent, was the most popular and the one that it would be most advisable to plant in Ontario. Particularly favorable mention was made of the Davies Warrior, a variety of potato that yielded 184.6 bushels per acre in this unfavorable season, proving itself very handy and almost free from rot. In early potatoes Irish Cobbler and Extra Early Europa are the best with little to choose between them.

A SLIPPERY QUESTION

Prof. Geo. E. Day compared his attempt to deal with the distribution of labor on the farm as similar to the attempt that a toothless cow might make to eat a large hard slippery turnip. All that he could do would be to polish some of the dust off the question. Prof. Day does not believe ordinary business principles could be applied with advantage on the average farm. He cited the two weakest points in farm management as being the tying up of a great amount of capital in unproductive material and the irregular demand for labor. As remedies for the latter he suggested that all manure be taken to the fields in the winter and spread, that machinery be repaired in winter for the work of the next season as well as buildings, fences, etc., the preparation of seed grain in the winter and over and above all, the development of the live stock end. This stock end will be dealt with more fully in a future issue of Farm and Dairy.

The possibilities of farming on a small area were brought home to the audience in a most convincing manner by J. W. Clark, Cairnair, Ont. Prof. F. W. Krouse, Guelph, Mr. Clark's success is too well known to the readers of Farm and Dairy to require further comment. Suffice it is to say that last year from his 25-acre farm

(Continued on page 11)

MEET

Experimenters in Small Farm.

because it makes appearance in the an attractive out need in it?" asked

a growing popu- which, for some both barley and wheat, the profes- the greatest per- Ontario of any years. In speak- high every farm- for table of the Golden Hen- exceeding five, mailed for favor, if they are there in case of the

ON DISPELLED the alto- idea, that the most desirable duction stand- conducted at oughout the pre- mension has for siderably ahead 1912 the Ideal, form, gave the at this point a fessor what he manged. Pro- me sugar man- 0 per cent. of five per cent. el, and 15 per cent, but they not in the manged.

g fodder corn. The point which was 6 tons per acre 29 tons per acre. was, the most at it would be in Ontario. mention was prior, a variety 186.4 bushels favorable season, dry and almost potatoes Irish Eureka are choose between

STION compared his the distribution similar to the ss cow might slippery turlo- would be to off the ques- if ordinary be applied average farm. test points in ing the tying of capital in and the irreg- As remedies tested that all the fields in the machinery of the buildings, duction of seed and over and out of the live will be dealt uture issue of

arming on a home to the being man- Mr. Clark's to the re- require it is to say 25-acre farm (p. 11)

Issued Each Week

FARM AND DAIRY & RURAL HOME

Only \$1.00 a Year

Vol. XXXII.

FOR WEEK ENDING JANUARY 16, 1913.

No. 3

A SUGGESTED BASIS OR SCALE FOR AWARDEING PRIZES IN COW COMPETITIONS*

Prof. H. H. Dean, O.A.C., Guelph, Ont.

Awards in Dairy Tests Should be Made on a Strictly Commercial Basis. A Commercial Classification Entirely Eliminating Breed Considerations Suggested. Would This Make The Test of More General Value?

WHAT the French call, *Loistes Poires*, or the "let alone" policy is most popular with the masses. A new idea is usually distasteful to most persons. Some one has said, "mankind in general, hates new ideas because it requires thinking in order to understand and accept them." This peculiar trait of humanity has been put into a rhyme which runs as follows: "To follow foolish precedent and wink With both our eyes, is easier than to think."

Men who advocate changes and improvements are usually spoken of as "cranks," "kickers," and "knockers." The fact is, however, that most improvements have resulted from new ideas generated in the brain of a thinker—a "kicker" if you will.

The present is essentially a commercial age, particularly so for the Anglo-Saxon race. Commerce holds sway in, and dictates the policy of nations who speak the English language. Philosophy and sentiment play but a small part in this "work-a-day," "get-rich-quick" age and generation.

VALUE THE BASIS OF AWARD

Coming to something more practical, we find the prizes in nearly all classes of live stock and live stock products at our exhibitions awarded, so far as possible, on the basis of their relative market value—or what these are worth in dollars and cents. The judges in certain of the Leaf, bacon and mutton classes at this Fair have their judgments, passed upon animals on the hoof, "checked up" by the judgment of experts on the carcasses of these same animals. These two are getting closer together each year. In the horse and poultry classes, it is, or ought to be, the relative money values that decide awards as interpreted by the best judges obtainable. What would we think of a judge, say of bacon hogs, who awarded the prizes largely according to the fat on the hogs? Fat is an important factor but not all by any means. Market or food values being the basis for practically all other classes produced for human food, why not bring the dairy cow competitions under similar rules?

So far as I know the present scale for awarding prizes in the cow classes is a modification of an English scale of points used by the

*An address at the recent Guelph Winter Fair.

British Dairy Farmers' Association. Their scale as used during the latter part of the 19th century, and at the present time for aught I know, was as follows:

- 1 point for each pound of milk.
- 20 points for each pound of fat.
- 4 points for each pound of solids not fat.
- 1 point for each 10 days in milk, after the first 20 days, limit 200 days.

10 points are deducted from the total score for each per cent. of fat below three per cent. in the milk.

This scale has been modified from time to time in Ontario, until at present we have for this Fair the following scale:

- 25 points for each pound of fat.
- 3 points for each pound of solids not fat.
- 1 point for each 10 days in milk after the first 30 days; limit 10 points.

The British scale aimed to include, so far as was possible in one scale, the relative market values of all kinds of milk and also to make some allowance for cows that were advanced in lacta-

tion at the time of the test. We have been gradually getting away from the original scale, until at present, the pounds of fat in the milk, which is the most variable milk constituent, practically decides the standing of cows in all classes. For the years 1907, '08, and '09, the prizes for all dairy breeds, and for all classes at the Guelph Winter Fair were awarded in the order of milk-fat production. In the year 1910 all first prizes for all breeds and classes, except Ayrshires, Holsteins, and Jerseys 48 months and over, were awarded according to milk-fat production, and these exceptions are based on a difference of only about one-tenth of a pound of fat in each case. All other prizes for that year, except a fourth prize in the Holstein cow class, went according to fat in the milk. In 1911 all prizes, except the fourth in the Ayrshire cow (48 months and over) class, the third prize in Ayrshires, 36 months and under 48 months, the fifth prize in the Ayrshire heifer class, and the fourth prize in the Holstein heifer class, were given on the milk-fat basis.

We thus see that four years out of five, at the Guelph Winter Fair, practically all the prizes have gone for milk-fat production. In the great majority of cases, weighing the milk and testing for milk-fat is all that was necessary under the present scale.

Briefly, my proposal is that the four great commercial classes, or uses of milk, be the basis for awarding prize. These classes are—milk for direct consumption, milk for cream and butter-making, milk for cheese-making, and for condensed milk.

In the first case, prizes would be awarded according to weight or gallons of milk produced, so long as it is legal milk—3 per cent fat, 12 per cent total solids as defined in the Ontario Milk Act of 1911. (A deduction could be made for milk under legal standard). In the second class, milk-fat would be the basis of awards; in the third class, milk-fat and casein; and in the fourth class, total solids; or, this latter class might be included in the first, and thus reduce the number of classes to three, as at least one milk condenser in Ontario buys milk by weight, regardless of test.

One other suggestion. I would recommend doing away with the breed classes as we have them at present. I can see no reason why the Ayrshires should go into a class by themselves, the Holsteins by themselves, the Jerseys and the Shorthorns by themselves, and the grades in still another class. This is too "exclusive" in a test where public money forms the chief part of the prize money. (I venture to say this on my own responsi-

What Varieties Shall We Seed Next Spring?

Members of the Ontario Agricultural and Experimental Union have thoroughly tested all our best varieties of grains. Following are the results of their tests in 1912 of a few varieties that in previous years had proved to be the best.

Experiments	Varieties	Comparative Value	YIELD PER ACRE		
			Straw, tons.	Grain, bus.	Grain, lbs.
Oats (6 tests)	Siberian	100	1.83	50.16	1766
	Regenerated Abundance	84	1.43	47.00	1601
	Lincoln	85	1.44	46.54	1582
Six-rowed Barley (23 tests)	O. A. C. No. 21	100	1.26	36.21	1246
	Emma	85	1.43	39.11	1646
Two-rowed Barley (3 tests)	Hanna	100	1.26	32.78	1574
	Two-rowed Canadian	95	1.30	32.22	1546
Hullless Barley (6 tests)	Guy Mayle	100	1.92	28.77	1726
	Black Hullless	93	1.85	26.23	1574
Spring Wheat (4 tests)	Wild Goose	100	1.89	15.00	1600
	Hamdrum	92	1.69	15.33	929
Buck-wheat (5 tests)	Rye	100	1.69	37.67	1808
	Silver Hull	78	1.69	32.83	1576
	Imperial Amber	100	1.52	24.20	1458
Winter Wheat (13 tests)	American Wonder	85	1.47	21.77	1292
	Crimson Red	66	1.89	21.54	1366
	Banka	79	1.43	21.15	1269
Winter Rye (4 tests)	Tasmania Red	60	1.80	20.96	1258
	Mammoth White	100	1.59	23.93	1540
	Common	68	1.58	19.83	1110
Spring Rye (3 tests)	O. A. C. No. 61	100	1.58	26.79	1500
	Common	90	.66	24.47	1370
Field Peas (20 tests)	Canadian Beauty	100	1.87	21.08	1296
	Early Britain	83	1.63	21.33	1292
Field Beans (12 tests)	Marrowfat	100	1.44	31.37	1882
	Pea Bean	93	1.19	30.11	1806
Soy Beans (2 tests)	Early Yellow	100	1.33	18.11	1066
	Brown	76	.84	13.49	810
Corn for Grain (7 tests)	Genesee Valley	100	15.58	57.86	3240
	Early California	100	11.64	54.77	3067
	Wisconsin Little Dent	77	9.16	42.69	2390

Whole crop

bility and do not speak with authority). The public cares little whether an animal is red and white, fawn and white, black and white or "black and blue." What the public wants to know, and what they have a right to know, so far as public tests can settle such a question, is, what is the best cow for my, or our, particular line of dairying, whether it be milk production for town and city trade, cream and butter production, cheese, or condensed milk?

If the various Breed Associations wish to donate special prizes, or give money for the regular prizes, as they do now, for doing which they deserve highest commendation, they may do so under the proposed plan, but it is now time to get above petty breed jealousies, and adopt a basis of awards more in accord with the spirit of the times in a progressive dairy country?

If We Must Have Beef

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

Ever and ever the tendency is more and more toward dairy cattle. Beef cattle are either standing still or actually on the decline in every province of Canada. But we eat just as much meat as ever we did. We Canadians, like our British ancestors, cannot get along without meat. Our wives do not know how to feed us properly without a good big percentage of beefsteak. If acquired characteristics are transmitted from father to son, then we Canadians are doomed to be meat eaters. Sometimes we decide when meat is particularly high in price that we will try the vegetarian stunt, but it doesn't work well. I tried it myself once, and it was worse than pestilence and famine.

But where is the meat to come from? Raising beef on the old lines is not profitable. I can remember in my father's day when practically the whole revenue of the farm came from what little grain we sold and from the steers. The cows did not give milk enough to make it worth while milking them after the first three or four months, and hence the foundation stock was a dead loss. Hence we have the effort to breed a dual purpose cow. Beef men believe that if they could get a cow that would give enough milk to pay for her keep over and above the feeding of the calf and make a fair profit besides, the steers sold would then have only their own feed bill to pay and not their mothers as well. I believe it has been proven that the dual purpose cow is a myth and a delusion. The specialized dairy cow is so much more profitable that we cannot afford to give the dual purpose cow stable room. The difference is easily explained. Our dairy bred cattle have been bred with milk production as the sole object for hundreds, and in many cases thousands, of years. The production of milk has become a part of their nature. Beef bred cattle have inherited exactly opposite tendencies. And we expect in a generation or two to overcome the beefing tendency that has been inculcated by hundreds of years of breeding.

But we must have the beef. Here is my plan. Why not have our foundation herd of females of cows of some specialized dairy breed? To breed beefing animals we would use a pure bred sire, but on no account would any of the progeny be retained in the herd. We would also keep a pure bred dairy sire which would be bred to only the best milkers in the herd, and the progeny here would be retained to perpetuate the foundation

stock. The advantage of this system would be that we would have a self-supporting herd and I believe we could breed from this cross, steers that would make good market animals. What do you think of my plan?

Alfalfa Growing in the Eastern Provinces

T. Glyson, Prince Co., P. E. I.

Some have had fair success in growing alfalfa here in the eastern provinces of Canada. The experience of others have not been favorable. Such has always been our experience before with other new plants. The writer would urge upon dairy men who want to increase their profits in that line of farming to grow alfalfa. It has been proven to be as rich in food constituents as wheat bran. I have not found it difficult to grow from two and one-half to three tons to the acre with a fair amount of care in getting a good catch.

In the spring of 1911 I sowed one and one-half acres to alfalfa with a catch crop of oats. The oats gave a heavy crop, which gave the alfalfa a poor chance, but the oats were cut August 12th, and no stock was allowed on the field after, which gave the alfalfa a good growth before winter set in. During the following winter we had very little snow, and this gave the alfalfa another set-back, but the first of the next summer was very hot, and the alfalfa made a remarkable growth, it being ready to cut on July 8th. We got a crop of a little over two tons to the acre. Then came our next set-back, as we scarcely had a warm day for the remainder of the summer. We cut the second crop on August 20th, the yield being about 1,500 lbs. to the acre.

Our initial experience should be an encouragement to other dairy farmers to raise alfalfa for

Why Protect Farm Machinery?

A manufacturer of farm machinery says that if the farmer took as good care of his implements as the manufacturer did of his factory machinery his sales would drop off nearly one-half. A farm machine often suffers more depreciation when neglected during the winter than it would in two seasons of hard usage.

Nearly all farm machinery will stand a great many years of use if properly housed and cared for. The ordinary farmer gets only about one-third the service from his farm machinery that he should. The average life of a binder is from five to six years, but when properly housed and the necessary repairs made promptly, instances are on record where they have given 20 years of service.

A good coat of paint adds very materially to the appearance of a machine and pays for itself many times over in keeping the wood parts from rotting and the iron from rusting. In applying paint, remember that one coat of thin paint applied every year is much better than one coat of thick paint applied every two years.

The thing which should receive first consideration in the care of farm machines is a good dry shed to protect them from the weather. The life of a machine is increased many times by proper housing and care when not in use. It is not necessary to have an expensive building. All that is required is one that will keep out the moisture and direct rays of the sun. Above all things it should be dry. Dryness prevents rust and decay.

BEST TIME TO PROTECT

The time to make a machine ready for next season is not when you have the leisure to do it.

It should be attended to at the moment you haul it in from the field after you have finished with it. It is not a wise plan to put it off. If you wait for a more convenient time you are quite apt to neglect it altogether. Other work will come on and the farmer will consider himself too busy to stop. The consequence is, that he has lost a good chance to save himself a lot of labor the very next time he needs it.

When a machine is needed is very often when time is most valuable. If it has been neglected the previous season and left to stand out-of-doors considerable time must be spent making repairs and putting it in such a condition so that we can use it. Often broken parts are found, which make it necessary to secure repairs before the machine can be used. Just as necessary as the proper housing of a machine is the prompt repairing of all broken and missing parts. Every bolt in a farm machine is put there for a definite purpose and if broken or lost an undue strain is put on another part, often resulting in a serious breakage and loss in both time and money, for break downs always occur in the midst of a busy season.

All expense incurred in housing, painting and repairing farm tools will come back ten-fold in actual dollars and cents to the owner, besides the satisfaction of always knowing that the tools are ready and in good condition when wanted.

Is there money in seed improvement work? Mr. Geo. Boyce, of Menieville, one of our C. S. G. A. members, sold 500 bushels of seed oats for \$800. What would he have gotten for ordinary oats?—T. G. Raynor, Ottawa, Ont.



The Most Profitable Crop Possible on Many Canadian Farms

Sheep have made good on the high-priced land of the Old Country. They are even better adapted to make a profit from rough land than cannot readily be tilled. There is room in every province for a great number of sheep, and after being long in disfavor we believe that our farmers are now beginning to appreciate the value of the "Golden Hoof."

their cows. The best place to grow alfalfa is on a field sloping to the south with good drainage and sheltered from the cold winds in spring,—by a wood if possible. The seed should be treated with nitro-culture before sowing. It requires at least 20 lbs. of seed to the acre. Although I have seen alfalfa growing a good crop in the most exposed field on my farm, I would avoid trying to grow it on wet or low land.

Hand selected seed always gives a good account of itself even in the most adverse season. Heredity counts; even in seeds.

There are prospects for a great trade in proved seed for years to come, and if all growers will deliver the right kind of goods, the demand will increase as the quality increases. Men who have clean farms should have their eyes open to their opportunities in this direction. The first there will reap the best profit.

Machinery?

ery says that if his implements and machinery are half. A farm that would in two

stand a great used and cared only about one-machinery that binder is from uly housed and uly, instances ren 20 years of

materially. He fer itself many te from rotting applying paint. paint applied e coat of thick

first considera- is a good dry ther. The life mes by proper e. It is not ilding. All keep out the in. Above all prevents rust

eady for next iano to do it. ded to do the it in from the finished with the plan to put it for a more erg are quite it altogether. me on and the or himself too consequence

lost a good nself a lot of ext time he

is needed is time is most as been ne- season and of-doors con- be spent

putting it in so that we found, which a before the

housing of a ill broken and in machine is if broken or r part, often r loss in both ings occur in

painting and ten-fold in besides the tools are wanted.

work? Mr. C. S. G. A. ls for \$800. ary oats?—

More About Deferred Breeding

Jno. McKee, Oxford Co., Ont.

I was very much pleased on receiving Farm and Dairy of January 2nd to note the timely article from the pen of Prof. Barton on the subject "At What Age Shall we Breed our Dairy Heifers?" I am thoroughly in accord with the views expressed in the article. I consider the matter of such importance that last February, at the annual meeting of the Canadian Ayrshire Breeders' Association, in my pre-identical address I referred to the subject as follows:

"I believe also when the demand for dairy cattle is so keen and Ayrshires are selling for prices

am not at all alarmed at seeing them grow big and strong and, maybe, become a little thick in the head, neck and shoulders. The refinement will come in due time when they get to milking, and we will have big, strong cows with constitution and capacity.

Alfalfa Pointers from a Noted Dairyman*

By Glendinning, Ontario Co., O-t.

No farmer, no matter how skilled a feeder he may be, can make a profit from his best cow by feeding her silage, oat straw and timothy hay. This is because they do not contain the proper nutritive constituents. The clovers, especially



A Scene That Would Make Any Scotchman's Heart Glad

The Scotchman is a cosmopolitan; he is found everywhere. The Scotchman's horse, the Clydesdale, is almost as good a wanderer as its originator. The splendid bunch of Clydesdale mares seen in the foreground are the money makers on a New Zealand ranch. They would be even more profitable in Canada. —Photo courtesy New Zealand Farmer.

never before realized in the history of Ayrshire breeding, that a word of caution should be extended to the new breeders who are now purchasing their first Ayrshires and laying the foundations for future herds. I refer particularly to the practice of having heifers drop their first calves at too early an age. I consider that an Ayrshire heifer should never freshen under two and one-half years of age, and some of the best cows I ever raised did not calve until they were three years old. The tendency among new breeders, in their eagerness to build up a herd as quickly as possible, is to breed heifers too young. This is a great mistake, and has resulted in the past in a deterioration in the size of our Ayrshires as compared with the original imported stock."

OUR OWN PRACTICE AND RESULTS

The practice of having Ayrshire heifers at Brookside drop their first calves at from 90 to 36 months of age has produced such cows as the champion cow, Annie Laurie 2nd, record 15,134.4 lbs. of milk and 598.45 lbs. of fat in a year, and also the sweetest and bonniest of them all, Jean Armour, with a record of over 20,000 lbs. of milk and 774 lbs. of fat. As well we have her half-sister, Victoria, with a record of 11,283 lbs. milk and 451 lbs. of fat. Star's Sarah has a record as a three-year-old of 10,651 lbs. of milk and 407 lbs. of fat. The two last records were made under perfectly normal conditions, with the cows only milked twice a day and receiving no grain after being turned out to pasture in the spring. The splendid heifer, Violet of Hillview 2nd, winner of first prize as a two-year-old at Guelph and Ottawa Winter Fairs last winter, and first at Guelph last month as a three-year-old, is another product of this system of breeding.

The world's champion two-year-old heifer of the Ayrshire breed, Briery 2nd of Springbank, is also another example of the great advantage to be derived from giving the heifers time to develop before dropping their first calves. As long as they have the proper line of breeding behind them I

alfalfa, will round out the silage ration.

We used to hear farmers say it was impossible for them to grow alfalfa as it would not grow, but that complaint is little heard today because it has been proved that alfalfa can be grown almost anywhere. Those farmers who have grown alfalfa successfully are now adding field to field because they have found out its merits for themselves.

Don't think that because the growing of alfalfa enriches the soil where it is grown it is advisable to grow it on naturally poor soil. That process of improvement is too slow. Alfalfa does best and gives the best results when grown on naturally good soil.

Buy Canadian crown seed. It is the best that can be obtained.

I have seen good alfalfa in the fall of the year, sometimes two and three feet high, but have never seen it with too much top on it. It holds the snow and comes through the winter better than is the case where it is cut or pastured too close in the fall. If you can grow alfalfa at all it is the best crop of the kind that can be grown by the dairy farmer.

I use arsenical sheep dips in the spring and coal tar dips in the fall.—Col. McEwan.

In selecting a breed of sheep, take the one that originated in a country with conditions similar to your own.

Dr. Vivian of the Ohio Agricultural College, sums up the lime question in verse, as follows:

"Lime and lime without manure
Makes both farm and farmer poor.
But
Lime, manure and vigorous clover
Make the old farm rich all over.

*Summary of an address at the E. O. D. A. Convention at Kingston last week.

"Yarding" the Ice Supply

J. H. J. McKenney, Elgin Co., Ont.

When certain conditions make it necessary that we should put in a supply of ice last winter, we were met with a genuine problem. No suitable building was available. We had to have the ice, house or no house. This emergency resulted in a structure defying all the generally accepted requirements of an ice-house. The experiment seemed risky, but proved a huge success. All through the hot weather we had abundance of ice.

In selecting a site convenience was only considered. This happened to be under the spreading branches of a large apple tree. We calculated that the continuous shade thus secured might help to counterbalance some of the departures we found it necessary to make from the regular rules of ice-house construction. To support the framework eight posts were stood upon and so as to form an enclosure 12 feet square. These were of good cedar, which happened to be on hand and would have lasted a long time had the ends been sunk in the ground. But as the ground was frozen a couple of feet down they were set on the surface and held in an erect position by means of the boards forming the walls.

SCRAP LUMBER UTILIZED

The lumber used consisted of one-inch boards of all lengths, selected from a rubbish heap, nailed on the inside of the posts, of which there are three on a side. They effectively resist any pressure from the interior. An opening for entrance was left and a door constructed of short pieces, kept in place on the inside by the ice and on the outside by the posts. As the ice is used these are taken down one after the other.

Another point we ignored was drainage. Concerning this, I was not a little uneasy. If there had been time, the floor space would have been covered a foot or more in depth, with loose stones or bricks to improve the drainage facilities and form an air space between the ice and the ground. We were, however, fairly prodigal with sawdust, the floor being covered about two feet deep.

SAWDUST EFFECTED INSULATION

This 12-foot box completed to a height of eight feet, and floored with sawdust, we began filling in the ice at once. When done packing there was a solid block of ice 10 by 10 by 6 feet, or approximately 15 tons. This left a 12-inch space between the walls and the ice, which was filled with sawdust and well ramed down, after which a covering two feet thick was spread over the top. In every case, old sawdust, that had become thoroughly dried out, was used. If in a more or less green condition it is found to heat and melt the ice. As soon as this covering began to settle more sawdust was put on. The settling causes the covering to become quite hard, and proves very effective in keeping out a July temperature.

Our finished ice-house represents about two hours' work, with no cash outlay whatever. It is just a box to keep the sawdust in place. No roof was put on, and none seems to be needed, as the ice could not have kept in better condition. I believe that many do not provide sufficient ventilation. Many tight buildings have to my knowledge proved a failure in this respect. My method is nothing more or less than "yarding" the ice. As it has given the best results, I shall try it again.

There are different ideas as to whether or not it pays to buy second hand machinery. It all depends on the machinery. A tool that has not been much damaged is but little the worse for having the new paint worn off and the reduced price pays well for that. Old farm tools are seldom worth hauling home.

MAPLE SYRUP MAKERS

ENTER THIS CONTEST

\$500 IN GOLD
CASH PRIZES



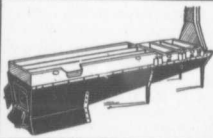
CUT OUT THIS COUPON

Why not be a WINNER in this Contest?

We are giving away \$500 in Gold Cash Prizes to users of the Grimm "Champion" Evaporator.

Full particulars will be mailed on receipt of above coupon.

The competition will take place during the last two weeks of April, and the samples of syrup and sugar received will be placed on exhibit in the show windows of the "Montreal Star." Every purchaser and user of the Grimm "Champion" Evaporator may take part in this contest. Now is the time to properly equip yourself to make high grade syrup and sugar—high priced and therefore profitable. Do it now before the sap runs. State the number of trees you will tap and we will give you a price on a suitably sized outfit.



Address all enquiries to:

PRIZE CONTEST:
GRIMM MFG. CO., LIMITED
58-58 Wellington Street
MONTREAL
(Don't Forget Coupon)

EGGS, BUTTER and POULTRY

For best results ship your live Poultry to us, also your Dressed Poultry, Fresh Dairy Butter and New Laid Eggs. Eggs cases and poultry crates supplied.

PROMPT RETURNS

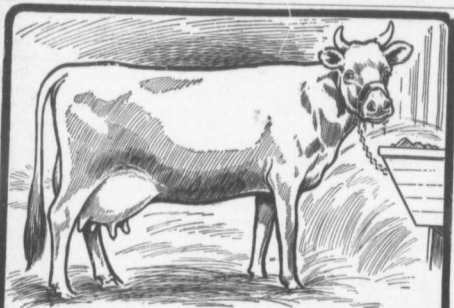
Established 1854

The **DAVIES** Co. Ltd.
Wm. Toronto, Ont.

**MERCHANTS
PRODUCE CO.**
Butter Eggs Poultry Honey
Beans Apples Potatoes, etc.

Our constantly growing trade demands large supplies of choice farm products. We need you. Write for weekly market letter.

57 Front St. E., Toronto
Established 1888



The Feed That Makes the Cream

Livingston's Oil Cake is the cheapest feed for cows—cheaper than corn, shorts or even hay. Because it actually increases the richness of cream—and also increases the amount of butter that you get out of the milk.

Test your cows before and after feeding Livingston's Oil Cake for a month—and your "butter money" will show its economy.

Livingston's Oil Cakes contain from 8 to 11% of pure Lined Oil—are soft enough to break into small bits—and are completely and easily digested. Write us for sample and prices if your dealer cannot supply you. Dominion Lined Oil Co., Limited, 242 St. E., Toronto, Montreal.

Livingston's Dairy Oil Cake

FARM MANAGEMENT

When to Spread Manure

Editor, Farm and Dairy.—I note in your issue of December 28th that Mr. Mallory advocates spreading the manure on the field directly after harvest. Most of us have very little manure on hand at that time as the cattle have been out on pasture all summer. If Mr. Mallory is in the habit of carrying his manure over from the winter until after harvest, I for one would not care to adopt his plan.

I believe that manure loses fully one-half of its value if held through three or four summer months. Can we afford to lose half the value of our manure just to apply it when the ground is good and hard to hold the spreader? I believe further that the manure when applied at that season would heat so rapidly that much of its value would be lost.—E. Watson, York Co., Ont.

Pointers on Seeds

Fred Foyton, Simcoe Co., Ont.

My experience in purchasing seed grain is that one-third of it is unfit for seed purposes. Seventy-five per cent. will grow, but it lacks in vigor. This means a loss of 350,000 bushels of grain each year in Ontario. In choosing varieties of grain to improve upon we should consider six points—hardiness, productiveness, early maturity, quality of straw, freedom from rust, and in oats, thinness of hull.

The varieties that I prefer are Dawson's Golden Chaff wheat, O.A.C. No. 21 barley, and O.A.C. No. 72 oats. This oat is heavy ricker and thin in the hull, free from rust than most varieties and stands up well. My experience is that it will outyield common varieties 10 to 15 bushels an acre.

Pease as a farm crop is on the decline and probably will continue to decline. I would advocate a liberal seeding; say two bushels to the acre.

In selecting grain we choose a calm day when each head can be plainly seen and we select those heads that stand stiffly erect on the stock with a solid even head that to the practiced eye denotes vigor.

Planning That Saves Money

Time is money to the farmer, as well as to anyone else. Time saved in doing chores, in going to and from the fields or in working the land, can often be used for the purpose of improving the farm buildings, or in caring for crops or stock that will pay a good profit on the labor.

That time can be saved in doing the chores, no one will dispute who is familiar with farming. A trip of 10 rods three times a day, across the farmstead, will amount in a year to 34 miles of travel, and will require 1½ days. On many farms the arrangement of the buildings may call for a number of such trips in different directions, and the distance travelled unnecessarily will easily reach several hundred miles in a year. No one would think of making such an arrangement of buildings if it called for the waste of time in one stretch, but because the waste is spread out over the daily tasks or chores, no attention is given the matter. The needless trips take energy and cause loss of time for over-tiredness. Count your steps for a day or week, and see how many miles of travel you can save in a year.

CONVENIENT FIELD ARRANGEMENTS Much time is lost also in going to and from the fields. A few hours

spent in making a plan of the farm and arranging the fields conveniently, with fences and lanes where needed, leading to the farmstead, will save many hours in the fields. The teams should begin to work as soon as they leave the barns. They can do so if the farm is planned so that the fields radiate from the farmstead. Try working out a plan for your farm, and see how convenient it can be made. One farmer in Minnesota added over 50 per cent. to his income, in three years, by revising his farm plan and organizing his method of handling the farm.

Long fields can be worked more economically than square ones. Three-cornered fields are especially expensive to handle. It is calculated that a diagonal ditch or road across a 40-acre tract will increase the cost of operating the land from 18 to 25 per cent.

When Buying Ensilage

I have a chance to buy 15 feet of ensilage in a 13-foot silo. It will be team ensilage in a 13-foot silo. How much should I pay for it? Should I bag it or haul in a wagon box? There are about six feet of old ensilage from last year. Will that be useless?

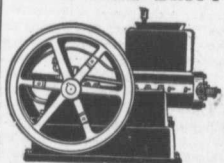
E. C. C. Wentworth Co., Ont.

The dry matter of corn ensilage is almost as valuable for feeding as is clover hay, being somewhat poorer in protein but richer in both carbohydrates and fat. If, therefore, clover hay is valuable at \$12 a ton, one ton of corn ensilage would be worth about \$2.40. Fifteen feet of ensilage in a 13-foot silo would be approximately 30 tons, giving the entire contents a value of \$72. The cost of hauling, however, has here to be taken into consideration. Ensilage contains almost 80 per cent water, and just as much feeding value can be hauled in one load of timothy hay as in five loads of ensilage. Unless the hauling can be done very cheaply, and the horses need the exercise, it would be inadvisable to purchase this feed. Hauling in a wagon box with the sides greatly extended would be preferable to bagging as it would be cheaper.

Last year's ensilage at the bottom of the silo is quite as good as that put in this year, provided the silo is airtight and any decayed matter at the surface of the silage was removed before this year's crop was blown on top of it.

When we seed alfalfa, we think of the job as being finished for several years. Why then worry about the price of seed or the amount to be sown?

GILSON ENGINE GOES LIKE SIXTY



Anybody can operate the simple "GOES LIKE SIXTY" Engine. Ready for work the moment you get it. Built strong and solid to last a lifetime. Will give long, uniform service. Gas, gasoline or kerosene can be used for fuel. Gilson Engine gives full value for your money, trouble, delays and expense.

Every engine absolutely guaranteed. You can try this "GOES LIKE SIXTY" Engine before setting for it. You take no chance. The "GOES LIKE SIXTY" Engine has an engine for every purpose. Size and sizes from 1 to 40 hp. Write for catalogue.

GILSON MANUFACTURING CO., LIMITED
88 York Street, GUELPH, ONT.

Chatty Letter From Alberta

G. E. White, Lacombe, Alta. Lacombe and the surrounding district has been well known in the past through the fine horses and cattle that it has produced. Formerly the dairying conducted here was mostly with grades. The dairy breeds have been gradually working their way in until at present there are several herds of Holsteins and Ayrshires in the vicinity. Amongst the Ayrshire herds might be mentioned those of W. R. Window, north of Lacombe; F. H. Duckitt, northwest, and Col. Gregory, southeast of the town. Amongst the Holstein herds are those of Dr. Peat, east of the town; T. H. Newman's, and my own, the Cold Springs Farm herd, west of the town. My experimental farm, here, has some Jerseys, and there are others who have individuals of these breeds as well as grades of the different dairy breeds.

During the last year there has been an unusual demand for pure bred dairy animals in Alberta and breeders have had difficulty in keeping females enough for their own breeding herds. Excellent prices have been received at the different sales, and a number of purebreds have been brought from the east. Even good grade cows bring from \$70 to \$80 at sales, and it seems as if anything that has four teats is snapped up at good prices.

EXCELLENT MARKETS

The wherefore of this great demand is found in the high prices being offered for dairy produce. There is a good market at Lacombe for all dairy produce and a creamery that runs the year round and gives good satisfaction. As for other markets in the province, parties from both Calgary and Edmonton have been scouring the country this fall trying to locate new supplies of milk and cream. Milk is bringing \$2.40 a cwt. delivered, while

sweet cream brings 45 cents a pound buterfat at our own station. The Laurentia Milk Co. of Red Deer have been paying as high as \$2.60 for milk for their special trade.

The climate here is very favorable for handling milk during the summer, as the nights are always cool. The winters are not so severe but that cattle can be kept comfortable without any large outfit for buildings. The principle here is to have more milk in hay and green out sheaves, although some cultivated grasses are being grown and more will be grown in the near future. Roots grow to perfection and are a great aid in keeping cattle in shape through the long winters.

DAIRYING ON THE INCREASE

Improving markets and more attractive prices are causing more people to go into winter dairying. We find that here as well as in the east the best time to have cows freshen is in the fall. They will give more milk during the year, if properly fed and cared for during the winter, and it gives you a better chance to give the calves a good start.

From our own experience we have found that it doesn't pay to try to dairy with scrubs, for it is too uncertain. It takes just as much room and almost as much feed and care to keep an unprofitable cow as one that will show a good profit. With pure bred cows there is a greater certainty of getting profitable producers.

We have found that the only way to improve our herd is by testing and weeding. Some breeders have a cow tested once, and if she tests low turn her down when perhaps that same cow would make a good showing in a yearly test, and better than another that tested high in a short test. The yearly test is the best way to determine the value of a cow, and this test can be made quite elaborate or very simple and good results obtained by either method.

COOPERATE WITH THE GOVERNMENT

I would would like to see the government take up the testing of grade cattle and if any one in Alberta is interested in doing some testing we would advise them to communicate with Mr. C. Marker, of Calgary, Provincial Dairy Commissioner.

Our great difficulty is the help problem. Most men would rather work on a grain farm, and it is very difficult to get good milkers. The milking machine will be a solution of the question for those who can milk enough cows to pay to get a machine. One of our town dairymen has installed a Sharples machine and tells me he is well satisfied with it.

After all, here in Alberta as elsewhere, the result in dairying, whether it be success or failure, lies with the individual and depends largely upon the interest he takes in his work, and with what thoroughness he carries it out.

The Feed of My Flock

Jno. Simpson, Hutton Co., Ont. I feed 15 ewes one and one-half gallons of oats, one-half bushel of mangolds and a little clover hay in the morning, hay at noon, and mangolds and hay at night. I keep water in the pens in the day time. I let the ewes out for exercise when it is not stormy. Ewes should not have all the hay they will eat just before lambing.

After the ewes lamb I give double the amount of oats and all the hay they will eat, but I don't give them many more mangolds than they got before they lambed. I keep plenty of water in the pens.

I believe the first essential to a comfortable stable is perfect cleanliness. A thorough grooming in addition will be conducive to the health and thrift of the dairy cow.

HIGHEST PRICE FOR CREAM

T. EATON CO. LIMITED is now paying 31c per lb. for Butter Fat. We buy cream, sweet or sour, of good flavor. We furnish the cans and pay the express charges within a radius of 250 miles of Toronto.

We test and weigh each can on arrival, and send you a statement for same.

We pay all patrons once a week, and the price is increased as the price of butter advances.

Drop us a card, and we shall be pleased to furnish you with any further information you may require.

THE T. EATON CO. LIMITED TORONTO - CANADA

Percherons

My barns at Weston, Ont., and Brandon, Manitoba, are now full of Percheron Mares and Stallions. Ages from one year old to five years old. Blacks and greys. Weights from 1600 to 2100 pounds. Of the very best style and quality and breeding, France produces. They are of the big thick kind. See them before you buy.

I do my own buying in France, ship large numbers, have no partners to divide profits with. Will take small profits. So feel sure it will save you money to get prices before you buy. No reasonable offer will be refused. Terms to suit. Many of the mares are safe in foal.

For further particulars write

J. B. HOGATE West Toronto, Ont.

MOLASSINE MEAL



Watch a horse when he is eating his oats—note how he slobbers—bolts a lot—and spills a lot—also a large proportion is undigested.

Take a couple of handfuls of MOLASSINE MEAL and mix with the oats at the next feeding time—reducing the oats by the amount of MOLASSINE MEAL added—then watch him eat—note how he masticates each mouthful and with what evident enjoyment.

Every particle of nutriment is obtained from all its feed—that's why it will cost you less for feed and you get better work out of your horses, if you feed them regularly with Genuine MOLASSINE MEAL (Made in England).

Prevents colic and gradicates worms. Get the genuine made in England. Ask your dealer, or write us direct for full information.

THE MOLASSINE CO., LTD., LONDON, ENGLAND Distributors for Canada—L. C. PRIME CO., LIMITED 26, John, N.B., 468 Broad of Trade Bldg., Montreal, Quebec, Toronto



Water Your Milk!

But do it by getting your cows to drink more water this winter through having

The Water Warmed

The Heller-Allen Tank Heater sets right into your water trough. Burns any kind of fuel—coal, cord coal, rubbish, wood, etc.

Cast in one piece. Takes on a uniform temperature and will not break. The result of careful study and actual use. Weighs 135 lbs., is 21 inches high, exclusive of pipe, and 12 inches in diameter. Has ash pan and grate, and basket fire pot and grate, all heavy cast iron.

Price, only \$3.00 a lifetime. It will pay big to have one.

Catalogue of Tanks, Pumps, Wash Mills, Pneumatic Water Systems, etc., sent only on request.

The Heller-Allen Co. WINDSOR, ONT.



Saves Clothes

The Connor Ball-Bearing Washer saves clothes. It washes them without any rubbing on the wash board. And unlike other washers, there is no post or obstruction in the Connor around which clothes are twisted or torn.

Connor Ball-Bearing Washer

is the SAFE washer. Nothing about it that can injure the most delicate fabric or loosen a button. Has new improvements and conveniences found on no other washer. No risk in getting one, because fully guaranteed by one of Canada's largest washing machine corporations. Look for the "money back guarantee" on the washer.

Ask for booklet giving complete description. It will open your eyes. Such a convenient, easy-running, time-saving washer was never thought possible three years ago.



J. H. Connor & Son
Limited
Ottawa, Ont.

Maple Evaporators

To the live farmer our Perfect Maple Evaporator and a sugar bush can be made to produce a revenue when it is most needed. With our Maple Evaporator sap is easily and economically converted into the finest quality maple syrup. The body of the Perfect Evaporator is made of heavy sheet steel, throughout and braced with steel angle and fitted with cast iron door and frame. The working of the evaporator is very simple—put the sap in at one end and it comes out syrup at the other.



STEEL TROUGH & MACHINE CO., LTD., 6 James St., TWEED, ONT.

GET A KEMP



MANURE

SPREADER

OUR Kemp Spreader pays. It saves labor and enables you to spread manure just right, without careful loading to exactly fill the box. The famous Kemp Spreader has 47 self-sharpening flat teeth which act as surely as shovels.

These teeth are so set that they always lift the manure, never pushing it forward against the apron movement. These details cause the extremely light draft and easy operation of Kemp Spreaders. With the Kemp, unlike others, you can load irregularly, yet spread perfectly at various speeds, either on hillsides, on the level or on wet ground.

Sold in Western Ontario and Western Canada by
COCKSHUTT PLOW CO. LTD.
BRANTFORD

Sold in Eastern Ontario and Eastern Canada by
THE FROST & WOOD CO. LTD.
SMITHS FALLS
Montreal, St. John

IT HAS FOUR SPEEDS AND NEVER CLOGS

THE Kemp four-speed distribution is instantly changed as desired. The flat-teeth do the work of 100 round-rod teeth. Get the full description of working parts before buying any spreader.

LET us give you full details of the Kemp. A post card to-day brings the "Kemp Book." Send to our nearest address now, please.

HORTICULTURE

New Brunswick Advertises Her Apples

The New Brunswick Department of Agriculture has attempted a new feature in advertising the fruit growing possibilities of that province this year. A splendid window display of apples grown in the St. John River Valley and other parts of New Brunswick is now on view at 761 St. Catherine St. West, Montreal, where the Department has rented a store for the purpose. This is one of the busy parts of Montreal's chief street, and is an admirable location for an exhibit. Twenty-five boxes of McIntosh Reds, Fameuse and Yellow Bell-flowers, of New Brunswick quality, are on exhibit in the window of the store, and are attracting a great deal of attention. Montreal Island is supposed to be the home of the Fameuse, and the place where the McIntosh grows to perfection, but many visitors say they have never seen such grand specimens of these varieties in Montreal before.

In the store proper are a dozen more boxes of Fameuse, and a number of boxes of King of Tompkins and Merits, which on the counters are displayed cones and plates of McIntosh and Fameuse. Mr. R. P. Gorham, Assistant Horticulturist of the Province of New Brunswick, is in charge of the exhibit, and is assisted by Mr. J. H. Ross and Mr. Kenneth Emberley, of Macdonald College. Literature descriptive of the fruit growing possibilities of the province, is distributed, and information on orchard care and management. The exhibit opened on Dec. 28, and will close on Jan. 18.

Fruit growing has gone ahead rapidly in New Brunswick during the past two years and promises to become one of the chief industries of the province. Nearly 60,000 apple trees were planted in 1912, and the number of orders already placed for spring delivery indicates that an even larger number will be set in 1913. McIntosh Red, Fameuse and Bethel are favorite varieties, and are being most liberally planted. These seem to attain their greatest perfection in New Brunswick, and are in demand on the market.

Ancient Orchard Settings

I have 10 acres of land that I would like to convert into an apple orchard. I am 72 years of age. The land is well fertilized every year, fairly well drained, with a small creek running through it. I would like your advice. What do you think of the mulch method—W. D. E. Ontario Co., Ont.

Your proposition is interesting in that most men of your age have given up the idea of planting apple trees. Spy and Baldwin are without doubt the best varieties for your section. Stark is very highly recommended by some of the best posted men in your vicinity. Should place a good deal of value on what they say.

The mulch method of handling orchards does not seem to be capable of general application. The advantage, so far as my observation goes, in which the mulch method might be used satisfactorily, is where land is inclined to be wet, and where there is at any time any serious danger of drying out during the summer season. The system gives good results also on hillsides which are too steep for cultivation, but on land that can be cultivated, and which is not at all likely to suffer from dry weather during the growing season, it is not likely in my opinion, that mulching would be as satisfactory as clean cultivation.

It is good orchard practice to begin cultivation as early in spring as possible and about the first of July to seed down with a cover crop, and that method of management is capable, I believe, of almost universal practice.

I prefer one year trees to the other but in buying them get trees that are at least three and a half feet in height. You will find I think, that trees very much smaller than this will not make sufficient growth the first year after having been planted and cut back to form a good head. It is desirable to have a scaffold limb well formed by the first year's growth after setting out.—Prof. J. W. Crow, O.A.C., Guelph, Ont.

POULTRY YARD

Preparing Poultry for Market

In an address and demonstration at the recent Guelph Winter Fair, Miss Mary Yates, of Port Credit, Ont., enunciated the following pointers on preparing fowls for market: Kill the birds 24 hours before killing.

Pluck immediately after killing because it is easier done and the bird is left in better shape. In no case should scalding be practiced.

Where birds are killed by stretching the neck, and the blood drains into the cavity in the neck, this cotted blood should be removed before marketing. Stretching the neck is not a good commercial method of killing. For market purposes, the proper way is to insert a narrow blade into the mouth, sever the jugular vein in the base of the skull, and puncture the brain in withdrawing the blade.

The birds may be shaped by tying with strings when plucked. Tie the feet under the wings, then tie the hocks down to the tail, cross the strings and tie tightly.

Cooling under pressure, using either a shaping board or the stringer, sets one to expel all gases from the body of the bird, and its keeping qualities are thereby improved.

When killing by severing the jugular vein I find it convenient to cover the vein with a small burlap sack with a hole in the bottom through which the head comes. The sack does away with the flapping.

Cooperation Abroad

"It is a lucky egg that reaches the consumer in Toronto or Montreal within twenty days from the time it is laid," said Prof. W. R. Graham, in an address at the Guelph Winter Fair recently. Other points made by Prof. Graham in the same address were as follows:

Twenty per cent. of the eggs in Ontario are unfit for use before the consumer gets them. The shell of the egg does not protect the contents.

An egg absorbs flavors. Hence it is that the medicated nest eggs used by some poultrymen, give eggs an objectionable odor.

Through cooperation in gathering and carrying eggs to market, producers can get rid of middlemen, offer consumers a better produce, receive better prices themselves, while the consumer actually pays less for his eggs.

In Denmark there is a chicken and a quarter per acre, in Great Britain one chicken per acre, and in Ontario the proportion is about the same. If we had larger flocks of poultry on our large farms in Ontario, the expense of collecting eggs in a cooperative way would be much less.

Since they adopted cooperation in Denmark exports have doubled and trebled.

EASTERN ONTARIO DAIRYMEN MAKE IMPORTANT DECISIONS

Many Vexed Questions Were Discussed and Resolutions Adopted at Their Annual Convention. Recommendations of the Royal Commission. Educational Addresses Were of a High Order.

SCHELDON in the history of the Eastern Ontario Dairymen's Association has the annual Convention dealt with so many important questions, and seldom have so many resolutions of such far-reaching importance been approved of at one convention, as were approved at the Convention at Kingston last week. The dairymen took a definite stand on such vexed and long-standing questions as the great cheese problem, the inspection of factory scales, underweights at Montreal, the appointment of an official inspector of weights and measures at Montreal, and on the bonding of cheese merchants. Each one of these questions has been a subject of much discussion and oftentimes of bitter recriminations between producers and buyers. The carrying into effect of at least one of these decisions, that of inspection at Montreal, may lead to an entire change in the system of cheese factory inspection and inspection in Ontario. So much for business done. Educational addresses also were of a high order; but in two of the sessions at least problems were given too much time, or rather took too much time, and detracted much from the educational value of the convention. It may be well to give local politicians this say, but it should be remembered that the E.O.D.A. convention is an educational institution, and not a meeting for the furtherance of political dogmas.

The first act of the Association was to pay tribute to the memory of those members who were no longer with them. Death in the last few years has carried away many who have long been closely identified with dairy work in Eastern Ontario. In this last year the Association has lost three of its oldest and most valued members, Mr. J. H. Singleton,

FOR SALE—Royal Strain White Wyandottes. 4 Coocks, 2 years old, \$3.00 each. 6 Cockerels, \$2.00 each. These birds are a snap if taken at once. All stock farm raised.—A. Everett, 309 Towne end St., Peterboro.

CREAM WANTED.

We furnish free cans and pay express charges. Our cheques are issued every fifteen days and are cashed at par anywhere.

If you live in Ontario and milk cows why not ship your cream to the best market? Write for full particulars.

TORONTO CREAMERY CO., LIMITED, TORONTO, ONT.

The Famous Spray Pump Contest

"This is to certify that at the Contest of Spraying Apparatus held at Grimby, Ont., under the auspices of the Board of Control of the Fruit Experimental Station, and by approval of the Dept. of Agriculture, in which there were 16 contestants, the Spramator, made by the Spramator Co., was awarded first place."

H. WERT, President, O.A.C. Judges: M. PETTIT, Pres. O.F.G.A. You can learn all about the Spramators from reading our handbook.

A GOLD MINE ON YOUR FARM You probably know that you will need to know about all of the insects affecting your apple trees and your other fruit; and you have to combat them, how to prepare the sprays, when and how to apply them.

There is a Spramator made specifically for your needs; we will tell you about it when you tell us what you grow. Spramators are used the world over. You will want a Spramator. Write tonight for your copy of "A Gold Mine on your Farm." Address me personally—

W. H. HEARD
c/o SPRAMATOR CO.
1703 King St., London, Ont.
Largest manufacturers of Sprayers and Accessories in the world.

President of the Association; and M. K. Everett, Smith's Falls, and Richard Kidd, M.P. Many times during the Convention the value of the services of these men was mentioned, and no resolution ever met with more unanimous approval than that moved by Senator Derbyshire expressing the heartfelt sympathy of the members for the bereaved families.

OFFICERS ELECTED
Hon. Presidents—Senator D. Derbyshire, Brockville; Mr. J. R. Dargave, M.L.A., Elgin, Ont.; President, G. A. Gillespie, Peterboro; Vice-President, J. A. Sanderson, Oshesney; J. V. Walsh, Albert; West-lesy Willows, Carleton Place; J. Campbell, Ormond; Geo. McLean, Finch; Capt. John Gillies, Glen Norman; Nell Fraser, Vankleek Hill; J. B. Ferguson, Renfrew; Fred Dillworth, North Gower; W. H. Olmstead, Vars; Jas. A. Sanderson, Oxford Station.

Directors: Henry Glendinning, Nanilla; T. J. Wright, Picton; Willett Farley, Canifon; Thos. Thompson, Madoc; Joseph McGrath, Mount Chesney; J. V. Walsh, Albert; West-lesy Willows, Carleton Place; J. Campbell, Ormond; Geo. McLean, Finch; Capt. John Gillies, Glen Norman; Nell Fraser, Vankleek Hill; J. B. Ferguson, Renfrew; Fred Dillworth, North Gower; W. H. Olmstead, Vars; Jas. A. Sanderson, Oxford Station.

Auditors: J. W. Hyatt, West Lake; M. Bird, Stirling, Ont.

Executive Committee—Messrs. Glendinning, Jas. Sanderson, N. Stone, G. Leggett, Jos. McGrath, N. Fraser, T. H. Thompson. Representative to Canadian National Exhibition, 1913—Henry Glendinning, Nanilla, Ont.

THE ROYAL COMMISSION

The members of the Royal Commission recently appointed to investigate grievances complained of by cheese makers and producers, were all present at the Convention at Kingston, and gave a summary of their investigations to date. Briefly, the demands of the cheese men were as follows: (a) The appointment of a Government referee at Montreal; (b) a change in the rule re overweight; and (c) the bonding of exporters. The commissioners expressed themselves as favorable to clauses (a) and (b), but strongly opposed clause (c). The subject was further discussed at several sessions.

THE OFFICIAL REFEREE

The advisability of having an official referee on quality at Montreal, was discussed at a meeting of the directors. Each director was asked for an expression of opinion. A large proportion of the directors stated that they saw no need for such an appointment. Official referees in the past were used so little the Government discontinued the office. Mr. He would prefer to have the report of an official referee on the quality of the cheese than that of the buyers. He had sometimes thought that the Ontario Government might save considerable expense were he to move to Montreal during the shipping season, and by watching the quality of the cheese as it arrives there detect the factories that are in trouble, and the nature of the complaint, and then arrange to deal with an instructor to the factories in trouble. This would do away with the present system, under which the instructors tour the factories whether they are in trouble or not. This system would make it possible to do with less instructors, and ensure the factories obtaining the assistance of the in-

ABSORBINE

Will reduce inflamed, strained, swollen tendons, ligaments, muscles of joints, cure the lameness and stop pain from a pulled muscle or sprain. Sprain, no matter how long, how bad, how deep, will be cured. Insertion of Absorbine. See our instructions and a booklet free. (Use Absorbine for sprains, strains, torn ligaments, enlarged glands, piles or hemorrhoids, rheumatism, neuralgia, etc.) Price 50¢ a bottle at drug stores or direct from the manufacturer, W. F. YOUNG, P.O. Box 112, Kyanan Bldg., Montreal, Ca.



125-Egg Incubator and Brooder for \$13.75

If ordered together we send both machines for only \$13.75 and we pay all freight and duty charges to any R. R. station in Canada. We have in each warehouse in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under slatted covers with egg tray. Absolutely adapted to Canadian climate. Incubator and brooder your guarantee—30 days. Incubators fitted with thermometer—ready to use when you get them. Five French Improved Brooder and—no special attention. If you will compare our machines with yours, we feel sure of your order. Don't buy until you see the high quality of our machines. Write us for literature and price list. Remember our motto: "We give you the best." Brooder and covers French and duty charge. Send for FREE catalog folder, or send your order and save time. Write us today. WISCONSIN INCUBATOR CO., Box 216, Racine, Wis., U. S. A. Don't delay!



Progressive Jones says:
"Get Bumper Crops from Worn-Out Soil"

Scores, yes hundreds, of my farmer friends have got bumper crops from soils they thought were worn out. They now swear by

Harab FERTILIZERS

One of them, A. Robinson of Rosemount, tells me that he used Harab Fertilizers on potatoes and turnips without any manure on the land which was very old and poor. He got a bumper crop and is more than satisfied. Another man, D. J. Ferguson, got a grand crop from very light land that had been hard run by tenants.

Friend, if you have some poor land, some worn-out soil, don't be discouraged. Harab Fertilizers will make that soil yield bumper crops, and make you happy, or my name isn't Progressive Jones.

Harab Fertilizers are natural Fertilizers, manufactured in Harris Abattoirs. To these are added Potash and just enough quick-acting Nitrate and Superphosphates to start the plant off with a vigorous growth.

The cost of using Harab Fertilizers is small. The results are big. Write to The Harris Abattoir Co. for their booklet. It gives the information you want to know.

Show for bumper crops
Progressive Jones

The Harris Abattoir Co., Limited, Toronto

\$5,000,000.00 FOR PEERLESS WAY POULTRYMEN

Into the pockets of the users of The Peerless Way last year went five million dollars made from the poultry these people raised. Yet chickens are scarce in Canada and eggs are the scarcest of all food commodities. That is positively the fact.

To-day there are not enough Canadian CHICKENS or EGGS to go around. Thousands of chickens and hundreds of thousands of dozens of eggs are being shipped into Canada from the United States and other countries to help meet the demand.

Yet there is a shortage! Eggs are commanding a tremendous price—chickens are worth dollars.

Now is the time to take advantage of this situation and make money out of it yourself. You can raise and sell 600 chickens this next year, and you will find a quick and sure market for every one of them. You can get the top notch price for all the hundreds of dozens of eggs that your poultry lay.

Let us tell you how!

Poultry raising is the best business for any farmer, say farmer's wife or farmer's child. The poultry crop is the one crop that never fails. It pays better for the time and money invested; the profit is sure; it isn't overcrowded and never will be.

Our book "When Poultry Pays," will show you. Let us send it to you. It is interesting; it is instructive, and it contains the proof.

You need this book. It will be mailed free. A post card will bring it.

LEE MANUFACTURING CO., LIMITED 200
Head Office: **PEMBROKE ONT.**
19 **PEMBROKE ST.**



CRUMB'S IMPROVED WARRIERS STANCHION

Prof. F. G. Helyar of Mt. Herman School, Mt. Herman, Mass., writes: "We could not get along without Warrier Stanchions."

Send address for book of information to Canadian writer B. Crumb, 1111 St. James St., S.E.A. All correspondence should be addressed to the home office. Write in inquiry if you prefer booklet in French or English.

CALVES RAISE THEM WITHOUT MILK
Booklet Free.
Steele, Briggs Seed Co., Ltd., Toronto, Ont.



"Many a dollar is lost by putting off until to-morrow. Send for catalogue to-day."
—The Philosopher of Metal Town.

No building material like this— "METALLIC"

is superior in every way. It is most economical—is easy and quick to lay or erect, saving expensive labor, and lasts a lifetime without continual repairs. Lightning, rain, wind or snow has no effect on "Metallic"—it is WEATHER, FIRE AND RUSTPROOF, the best material for all buildings.

Look over this list—all made from the finest quality sheet steel

- "EASTLAKE" METALLIC SHINGLES. On buildings for 25 years, and still in perfect condition.
- "METALLIC" CEILINGS AND WALLS. A handsome, sanitary decoration—lasts a lifetime.
- "METALLIC" ROCK FACED SIDING. In brick or stone design for houses.

- "MANITOBA" STEEL SIDING. The best for large buildings, elevators, mills, storehouses, etc.
- CORRUGATED IRON—GALVANIZED OR PAINTED. For implement sheds or barns, fireproof and durable.

[You should read our interesting booklet "EASTLAKE METALLIC SHINGLES," and our new Catalogue No. 70. A post card with your name and address will bring them to you at once.]

Agents Wanted in some Sections. Write for Particulars.

The Metallic Roofing Co. Limited
TORONTO & WINNIPEG

structures with the least possible delay. A few of the directors were favorable to the appointment of a referee on the ground that such an official would be able to aid the factories by the factories as it passes through Montreal. Mr. Publow pointed out that much of the cheese that passes Montreal when the demand is strong is seriously defective, but it is passed just the same. This tends to make the makers careless, and leads them to resent sometimes the advice of the dairy instructors. "If they pass legislation that all cheese shall be kept in factories for at least a week, as I hope they will, then I won't care if they have a re-

Mr. McDonald of the Commission, told the directors that he was satisfied the Commission will advise the Government to enact legislation requiring factories to keep their cheese in the factories for possibly 10 days before shipping. The original motion favoring the appointment of an official referee, was finally withdrawn in favor of a resolution moved by Mr. A. Campbell, of Ormond, favoring the appointment of an official at Montreal. The Dominion Government would like it would be to cooperate with the Ontario Department of Agriculture in the work of dairy instruction. Mr. Glendinning pointed out that such an official would be an ap-

Resolutions Approved at the E. O. D. A. Convention

One can gain an appreciation of the importance of the business transacted at the annual meeting of the Eastern Ontario Dairyman's Convention at Kingston last week, by reading the resolutions approved by the Convention. They are as follows:

That in the opinion of this Association all scales of cheese factories should be tested at least annually, and that the entire cost of the same be borne by the Government.

That this Association is of the opinion that in the interest of the cheese industry of the Dominion of Canada, legislation should be passed preventing the shipment of cheese from piece of production under ten days old.

That in the opinion of this Association the appointment of a competent official at Montreal by the Dominion Government to cooperate with the Ontario and Quebec Departments of Agriculture in advancing the dairy interests, is advisable.

That in the opinion of this Association, the present mode of payment for cheese is satisfactory, as the bonding of buyers might work to the injury of the producers, as the cost for providing such bond or bonds ultimately would have to be borne by the producers, and it is open to each and every cheese board to amply protect themselves as is now done by many boards.

ence at Montreal or not," said Mr. Publow.

G. A. Putnam, Director of Dairy Instructions, said that the wisdom of continuing the expenditure of large sums of money to help instructors visiting factories that do not need instruction, was being given considerable thought. Some change in the present system of instruction seems inevitable. He favoured having only two men in Montreal to inspect the cheese on arrival.

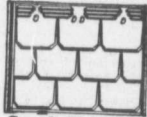
Mr. McGrath of Mount Chesney, pointed out that what was wanted at Montreal was an instructor, not a referee.

pointed of the Dominion Government, he would be excited to devote considerable time to the inspection of Quebec cheese also, which should tend to bring about greater uniformity in the make of the cheese of the province. Mr. Campbell's motion was carried.

Alleged irregularities on the part of Mr. McLeod, the cheese weigher at Montreal, were not borne out by the commissioners' findings. Mr. McLeod's weights in all cases were found to be correct. Investigations as to the correctness of factory scales showed where the trouble lay. In all cases where underweights had been complained of it was found that the factory scales were either of a cheap make, improperly cared for, or otherwise out of order. At present the factories are not credited with overweights. Under present rulings the weight of a cheese can be marked in even numbers only, and it is further required that a cheese must be one-half a pound over the even figure to allow for shrinkage. If a cheese weighs 80½ lbs. the factory man must mark his cheese as weighing 79 lbs. The commission will recommend that from now on cheese producers be credited with the three-quarters of a pound that is rightly theirs.

MORE ALLOWANCE FOR SHRINKAGE
Another feature of the weight question discussed was is ¼ lb. a correct allowance for shrinkage? R. A. Pringle, K. C., of the Royal Commission, pointed out that New Zealand allowed 2½ per cent. for shrinkage, and as a consequence New Zealand shipments were giving better satisfaction to British dealers than were the Canadian. In most cases, it was agreed, one-half a pound for shrinkage should be quite satisfactory, providing the cheese was properly cured. Dr. Edwards, M. P., for Frontenac, pointed out that on cheese coming from King-
(Concluded on page 15.)

EASTLAKE



Steel Shingles

LESSONS LEARNED AT THE EXPERIMENTAL UNION MEET

(Continued from page 2)

he sold over \$5,000 worth of produce. Mr. Krenze, who gave up his job as a farm laborer to purchase one acre of land, made \$425 off his land the first year and then purchased one and a half acre right at hand. Next year, from his two and a half acres, he made \$1,000, and the third year \$2,700. He then bought seven and a half acre more but now considers himself land poor and is willing to sell some of it. This last year he has sold over \$3,000 worth of produce and still has 400 bags of potatoes on hand. Mr. Krouse placed bees first in his list of money-makers. Mr. G. A. Robertson, St. Catharines, stated that he, through his net earnings, could place a value of \$5,000 an acre on part of his farm, which he considered a little better than even sub-division agents would be willing to pay him for it. Mr. Geo. W. Putnam told of the great results that were getting from alfalfa in southern Ontario. He considered that lots of land would double and treble in value if planted to alfalfa.

EXPORTING FIBER, IMPORTING WUTTON
Mr. G. H. Clark, Dominion Seed Commissioner, called attention to the great loss to Canada through the exportation of elevator screenings which with great profit he fed to sheep in this country. "We export these elevator screenings to the other side," said Mr. Clark, "and the American buyers feed them to their sheep and the wutton is sent back for Canadian consumption. We pay duty to get the wutton from sheep fed in the United States on Canadian material which is allowed to leave Canada as wools." Mr. Clark showed that the yearly increase on the Western wheet

yield meant an enormous accumulation of these screenings and urged that they be used more extensively in Canada. Fertilizers have been experimented with more extensively during the past year than heretofore, and the results as described by Prof. Zavits simply add additional proof to the old belief that every farmer must test out fertilizers under his own conditions before he can tell whether or not they will be profitable with him.

Mr. G. H. Clark scored severely those farmers producing clover seed on land so dirty with weeds that it could not possibly pass government inspection. "Less than five per cent. of our home grown clover seed," said he, "is sufficiently clean this year to be against the law to sell such seed much of it is still being exchanged between neighbors, which practice Mr. Clark condemned. At this point a gentleman in the audience gave Mr. Clark to understand that the government itself was sending impure seed to settlers in New Ontario. He himself had seven acres badly contaminated with noxious weeds from seed supplied through the Department of Agriculture.

GUARD AGAINST THIS DISEASE

Prof. J. E. Howitt, gave two addresses of great practical value. In connection with the new disease, potato canker, which Prof. Howitt believed had already found its way into Canada, he urged that all who could secure potatoes at home and which they know to be clean, to examine their seed carefully and if they were at all suspicious to send samples of diseased tubers to the Ontario Agricultural College or to the Botanical

Department at Ottawa for examination. In connection with experiments for the eradication of weeds, he told of one experimenter who had been successful in exterminating Bladder Campion by the adoption of thorough cultivation followed by potatoes. Experiments were also conducted on the eradication of mustard by spraying with a solution of iron sulphate, 80 lbs. of sulphate to 40 gallons of water, when the plants are in full bloom. The experimenter reported that not a mustard plant remained alive and the work was accomplished at a cost of 75c to 80c an acre exclusive of labor. Prof. Howitt recommended the use of granulated iron sulphate as the most suitable form for weed spraying.

Other addresses were given by Prof. S. F. Edwards, who told of their experiments in the use of legume bacteria; by Prof. E. J. Zavits, who dealt with Cooperative Forestry in Ontario and by Mr. Morley Pettit, Provincial Apiarist, who told of the good results that be keepers were obtaining through the adoption of his method of preventing swarming. Prof. S. B. McCready gave an historical account of agricultural education in the public schools of the province from before confederation to the present time.

The officers of the Ontario Agricultural and Experimental Union elected for the ensuing year were: President, Lewis Toole, Mount Albert; vice-president, T. H. Mason, Aylmer; secretary, Prof. C. A. Zavits, Guelph; assistant secretary, W. J. Squirrel, Guelph; treasurer, Prof. H. L. Hutt, Guelph; directors, Dr. Crossman, Stratford; Hon. Nelson Monteith, Guelph; F. C. Hart, Galt; James I. Dennis, Weston; H. Groh, Preston, and J. H. Winslow, Guelph.

For Automobile Owners

Have you an automobile? Are you contemplating the purchase of one? If so, you would like to know all about your machine, how it works, how it should be run and how to repair it in case of a breakdown. A book that will give all information about autos is "Audel's Answers on Automobiles," just come to hand.

This book gives clear, concise and practical information on the care, running and repair of the automobile. All difficult points are explained by diagrams in a way that anyone can understand. The book is handsomely bound, has 512 pages and 280 drawings. Price through Farm and Dairy, \$1.50.

A Study in Soil Improvement

The quality that the practical everyday farmer demands in an agricultural text book is clearness, a book that is designed to point out the plain every-day facts in a manner that can be easily understood. Such a book is "Crops and Methods for Soil Improvement," by Alva Ageo, of the Pennsylvania State College. This book is concerned with crops, method of soil management and fertilizers. The view point throughout is that of the practical man who wants cash compensation for the intelligent care of things along his line. It is of much the same style as is Henry's "Feeds and Feeding," one of the most popular of agricultural text books.

This book, recently issued by the MacMillan Company of Canada, is printed on good paper in large readable type, and is splendidly illustrated. It is a book that we can recommend to every Farm and Dairy reader. Price through Farm and Dairy, \$1.25.

the Commission, that he was satisfied to advise the legislation reepp their cheese possibly 10 days

on favoring the official referee, in favor of a A. Campyver the apoval at Montreal rument whose cooperate with of Agricultural instr-

ompted out that could be an ap-

vention the business Dairyman's lutions ap-

cheese factore cost of

rest of the should be production

of a comcooperate in advanc-

ight of pay-ment work such bond, and themselves

Government, to devote conspention of which should atter uniformcheater of the mpbell's mo-

on the part of e weigher at e out by the Mr. McCa- were investigations of factory trouble lay, weights had is found that either of a cared for, and it is cheese must r the even kage. If a the factory e as weigh-ment will re- on cheese the three- is rightly

SHRINKAGE the weight s 1/2 lb. a shrinkage? the Royal that New cent. for onsequence were giv- British nadian. In one-half a d be quite e cheese Edwards, pointed out from King-

15.)

Remarkable Skimming Records Reported by Eastern Dairy School



Canadian Dairyman look upon The Eastern Dairy School at Kingston with great respect, and know that the School's reports are always accurate and reliable. One of the late reports of the School is of great interest to dairymen, as it shows some remarkable skimming records made by THE STANDARD Cream Separator.

Test No. 1 (printed on right side of ad.) shows that the No. 4 STANDARD skimmed at the rate of over 500 lbs. although listed at only 450 lbs. per hour. Not only skimmed at nearly 100 lbs. over its rated capacity, mind you, but skimmed down to .025 per cent., which represents the loss of but 1/4 lb. of butter fat in 1,000 lbs. of milk.

Other makes of Separators, skimming at their listed capacity,



The Standard

average about 10 per cent., which represents the loss of 1 lb. of butter fat in 1,000 lbs. of milk. The STANDARD, skimming at away over its listed capacity, saves 4 lb. of a 1,000 more butter fat in every 1,000 lbs. of milk.

Test No. 1, therefore, goes to show that the owner of a STANDARD 450 lb. machine could open it up to skin 560 lbs. per hour and still do equally as good or better work than any other separator running at its listed capacity or less. In other words, if you would be satisfied with the skimming that ordinary machines do, a 450-STANDARD will skim equally as well as any other 550 lb. machine, and will give a good or better result.

But if you desire to skim more closely than an ordinary separator will do, just run the STANDARD at its listed capacity as it comes from the factory. You will then secure results such as shown in Tests Nos. 2 and 3 at right, which results cannot be secured by any other separator running on the basis of Tests Nos. 2 and 3 you will be making with an ordinary herd of cows an extra profit (as compared with other separators) of almost enough to pay for the STANDARD in two years' time, or an extra profit (as compared with deep-separating or pan-skimming) of sufficient to pay for the STANDARD in one year.

The STANDARD is indeed "The World's Greatest Separator." And the machine

Tests of Standard

Size No. 4. Listed Capacity, 450 lbs.

TEST NO. 1, APRIL 23rd

Minutes running	23
Temp. of milk	90 deg. Fahr.
Lbs. of milk separated	500
Per cent. of butter fat in skimmed milk	27.5
Per cent. of butter fat in cream	65.5

TEST NO. 2, APRIL 24th

Minutes running	35
Temp. of milk	90 deg. Fahr.
Lbs. of milk separated	560
Per cent. of butter fat in skimmed milk	31
Per cent. of butter fat in cream	69

TEST NO. 3, APRIL 24th

Minutes running	19
Temp. of milk	90 deg. Fahr.
Lbs. of milk separated	450
Per cent. of butter fat in skimmed milk	31
Per cent. of butter fat in cream	61

you will select, if you go into the separator question thoroughly and buy a machine solely on its merits.

Let us send you booklets containing further records of STANDARD tests and proofs of its superiority. Send us your name and address to-day.

The Renfrew Machinery Co., Limited
Head Office and Factory, Renfrew, Ont. Sales Branches, Winnipeg, Man., Sussex, N.B.

FARM AND DAIRY AND RURAL HOME

Published by the Rural Publishing Company, Limited.



L FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia and Great Britain, Ontario, and Bedford District, Quebec, Dairyman's Association and of the Canadian Holstein Cattle Breeders Association.

2. SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$2.00 a year. For all countries, except Canada and Great Britain, add 50c for postage.

3. REMITTANCES should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00.

4. CHANGE OF ADDRESS.—When a change of address is ordered, both the old and new addresses must be given.

5. ADVERTISING RATES quoted on application. Copy received up to the Friday preceding the following week's issue.

6. WE INVITE FARMERS to write us on any agricultural subject. We are always pleased to receive practical articles.

CIRCULATION STATEMENT The paid subscriptions to Farm and Dairy exceed 1000 a year. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and extra copies, amounts from 15275 to 17,300 copies.

Sworn detailed statements of the 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 scrupulous advertisers.

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 scrupulous advertisers.

FARM AND DAIRY PETERBORO, ONT.

THE FARM AS A BUSINESS

When the head of a manufacturing or business firm leaves this world for another his business does not stop. It is organized on a true business basis. The sons are already a part of the business, and all that is missed is the face of their father. There is no confusion; no need for readjustment. When a farmer who has sons on the farm with him dies there is great confusion immediately. The farm is not on a business basis. It is a one-man concern. The farm is either divided into several small ones among the different sons or one son takes on himself the responsibility of paying off the other heirs.

We prefer Uncle John Hyatt's plan, Uncle John is a well-known Prince

Edward county farmer. He runs his farm as a business. He and his sons are in partnership. In connection with their farm they have a canning industry. "When I leave," said Uncle John to an editor of Farm and Dairy recently, "all that the boys will miss is the face of Uncle John"; the business will go on just the same.

Jas. R. Anderson, also of Prince Edward county, has similar views as to the relationship that should exist between father and sons. His sons are not a superior variety of hired men. They are partners. Together they have established one of the best run dairy farms in Ontario. They are improving their cattle each year. All the partners are in love with their farm business. The Anderson business, too, will go on when the founder has completed his work and passed out.

This same plan of keeping the boys on the farm and vitally interested in its success has been outlined by "Your Uncle Henry" in his chatty letters published occasionally on page two of Farm and Dairy. What a great advance is a farm organized as a business over one without business organization as a means of holding the boys' interest! And yet the latter is the more common condition of the two.

We believe that the principal factor operating to drive our young men away from the Ontario farm is the absence of adequate financial returns. Lack of business organization is also a factor too important to be overlooked.

ATTEND THE INSTITUTE

"Do you practise what you preach?" was a question that many old-time Farmers Institute speakers found very embarrassing. The very great majority of Institute speakers to-day, however, are practical, successful farmers, and could answer such a question with a tale of success the like of which few of us can tell. And yet in spite of the high quality of speakers employed the Farmers' Institute is not prospering as it should. We believe that this lack of prosperity on the part of the Farmers' Institute is due in no small degree to the narrow range within which Institute lecturers are confined. But to be this as it may, there is still too much good practical information to be gotten from one meeting for any of us to miss a single session. Here are the records of a few of the Institute speakers with whom we are personally acquainted and their success is but typical.

Henry Glendinning was a boy in his teens when he decided to farm for himself. He started out with a good, practical knowledge of farming as it was then conducted. But he was not satisfied with things as they were. Pure bred dairy cows soon took the place of the scrub herd. And then came the problem of feeding those cows. Alfalfa was experimented with for several years. So satisfactory were the results attained that Mr. Glendinning started out to tell his fellow farmers, through the medium of the Farmers' Institute, what alfalfa

had done for him. No one who has visited Mr. Glendinning's farm, as we have, will question his ability to talk authoritatively on alfalfa and farm and stock questions generally.

J. W. Clark, Brant Co., Ont., is willing to talk on any one of three subjects—poultry, fruit, and bees. Mr. Clark has a twenty-five-acre farm devoted to these three branches of farming. His income per year is well over five thousand dollars.

Anson Groh, Waterloo Co., Ont., had more difficulties to overcome than have most farmers. Much of his farm was naturally poor. It had been depleted of what little fertility it originally had by poor farming. So successful has Mr. Groh been in building up that farm that a few years ago it was among the prize winners in the first Prize Farms Competition conducted by Farm and Dairy.

And so we might go on. But surely we have said enough to convince anyone of the character of the men who lecture at the Institute meetings. Can we afford to miss a single opportunity of hearing men such as these tell of the means and methods that have brought them success? We will be wise to make the most of the mine of information that the Farmers' Institute brings right to our doors.

WHAT WILL THE HARVEST BE?

"Whatsoever a man soweth that shall he also reap," says the Good Book. And nothing could be said that is truer. It is a truth that farmers particularly may apply not only to things spiritual and moral, but to things commercial. Our neglect to pay proper attention to this Biblical maxim is costing us many thousands of dollars every year.

Mr. Fred Foyston, a member of the Canadian Seed Growers' Association, estimates that one-third of the seed grain offered for sale is unfit for seeding purposes. Seventy-five per cent of this grain will grow but it lacks the vigor necessary to produce a good crop. Mr. Foyston further estimates that in Ontario alone, the loss due to poor seed amounts to 4,850,000 bushels of grain annually. Mr. Wm. Lewis, who for five years has been making a specialty of improved seed grain, estimates that, conditions being equal, selected seed will yield ten bushels an acre more than will the fields sown with ordinary seed grain. The harvest will be in exact relation to the quality of seed sown.

Those of us who have not yet applied the homely Biblical truth just quoted to our business can make a good start this winter. Numerous trials have demonstrated that plump large seed produces better crops than seed in which a certain proportion of the grains are shrunken or broken. We cannot do better than start right now to fan all seed grain intended for seed next spring and use only the plumpest and best. And if we wish to be ranked along with the most pro-

gressive of farmers and secure the best harvest possible, we will start in next spring with a small plot of pedigreed grain of some desirable variety and improve our own seed. We will be surprised how easy seed selection is, 'the little time it requires, and when we harvest our first crop we will have a new appreciation of the value of Biblical teaching in business.

THE DIVISION OF LABOR

How shall we distribute labor on the farm in order that we and our hired men may be profitably employed twelve months in the year? Prof. Geo. E. Day, in discussing this subject at the Experimental Unit, at Guelph last week, very properly emphasized the importance of increasing the live stock to give more labor in the winter months. We doubt, however, if Prof. Day sufficiently emphasized the importance of dairying as a method of labor distribution. As the speaker rightly contended, dairying, as it is commonly conducted, tends to increase rather than diminish the amount of work in the busy summer season. But there is a system of dairying that would go a long way towards solving the labor distribution problem.

Why not have the cows come fresh in the fall? We would get more milk in the lactation period, we would get the best flow when prices are highest, and the greater part of the work with the dairy herd would fall at a season when labor and time is abundant. Dairying as it is now being conducted does not distribute labor. Dairying as it is being more and more extensively practiced, winter dairying, is one of the best systems of labor distribution of which we know.

Farm Exercise

(Nebraska Farmer)

The city-bred boy that comes to the University of Minnesota is the all-round physical superior of the boy who comes to that institution from the country. This is the announcement of Dr. J. L. Cooks, physical director, after examining a large number of students. In the boys from the farm it was found that the muscles of the arms and shoulders were usually well developed, but nearly every other part of their bodies fell below the average. Small chest expansion and small lung capacity were other faults of country youth.

Is it possible to build implements as having this effect? Not nearly as much walking is done on farms now as was taken to be, while work that requires the use of the arms has not so greatly diminished. This would account for the development of arms and shoulders without proportional development in other parts of the body. The humped-over attitude assumed by many operators of riding implements would account, also, for the lack of lung capacity.

It may be urged that a man is strong and physically correct when he can do, and do well, the work in which he is engaged; if he doesn't need his legs why have muscles there like an elephant? That in a measure is true, but the health of the body requires a certain symmetry of development. We cannot imagine, however, that any farm boys out of consideration for well developed legs will go back to the walking plow and cultivator.

Jan... Ho... Pootly... Cows... mill... to... these... of... fending... gentlen... ways... for... one... other... hand... favored... from... a com... distan... her milk... ing food... milking... we are... Picture... When... timent... get in t... A good... idea bet... of work... of Coupl... price, a... ment... Look... Farm an... ous ads... first ad... advertiser... For a... tised pic... invaluable... Note t... a Tank... issue... conveys... of the d... familiar... suit coul... type alon... tution... small 80... ed to do... ad is do... One gr... vantage... is to ch... mind... plency o... child me... when, w... parable, a... To give... in any ad... is possi... successful... through ad... time men... a specifi... The Hel... of the d... discussion... They men... It is r... dear big... more resu... illustration... your case... price... And we... farmers y... 16,000 of... ad. in Farm... "A Paper I

Hold Back the Milk

Pately Bridge in "Farm and Home."

Cows will sometimes refuse their milk to strangers, and a rough milker will often upset a herd. The remedy in these cases is to get rid of the offending milker, for among dairy cows gentleness and kindness should always rule. If a cow evinces a dislike for one milker or a preference for another, it is best to humor her and hand her over to the care of the favored individual entirely.

A common remedy is to attempt to distract the attention of the cow from her milking by providing some tempting food. The question of feeding at milking time is a debatable one, and we are familiar with the arguments

against it, but nothing makes cows so much at home in the milking shed or brings them home to it so cheerfully as what the Yorkshire man calls a "bit a' licking." As a general rule, the relationship between cow and milker is good in dairies where feeding at milking time is an institution.

A TALK OF INSURANCE
In some cases with a strange cow patience wins, and if the milker sticks to his stool and keeps rubbing the udder and stroking the teats, he will tire out the most willful of cows. In other cases it seems a better plan to leave the cow for a time and return to her half an hour later. In extreme cases it may be found more effective to refrain from milking until the distension begins to cause inconvenience, but there are drawbacks to this, and carried too far there may be a case of garget or a bad quarter.

Putting a weight over the loins is a favorite remedy with some, and we have seen heavy chains and bags of sand, earth, or wet brewers' grains employed in this way. The idea is that the weight on the loins has an effect on the ability of the cow to control the voluntary muscles of the udder, which, under normal conditions, she can, but such measures are calculated to upset a nervous cow, and can never conduce to a big yield of milk.

A METHOD TO AVOID

Test tubes or milk siphons effectually negative the cow's efforts at retention, but these are no more to be recommended, unless as a last resource, than weighting the loins. The udder is not simply a reservoir for storing milk which can be emptied by overcoming the resistance of the sphincter. Secretion goes on while milking is in progress, and is favored by the gentle stimulus of the calf's tongue and palate or the hand of the milker. Moreover, this is the richest milk. Kindness, patience and perseverance are the most rational, as they are the most successful means to overcome a disposition to "hold" the milk.

Is Your Horse Sick?

One must be thoroughly familiar with the normal condition of the horse in order to be able to recognize the abnormal conditions indicating disease. The important things which must be noted are the temperature—100.5 to 100.8 F. in the normal horse,—the pulse—28 to 40 a minute,—the heart beat, respiration, conditions of digestive and urinary system, condition of mucus membranes, appearance of coat and expression of eyes.

There are many other important facts to be kept in mind, but these, the chief ones, if thoroughly mastered will make recognition of disease much less difficult.

Material for Silo

How much lumber is required for constructing a stave silo 14 by 30 feet? Would hemlock lumber be suitable?—J. K. Frontenac Co., Ont.

For a silo 14 by 30 feet long and six inches deep it would be desirable to have half the staves 16 feet 1 1/2 and half 14 feet long, 88 of each. Well-dried hemlock staves, two inches thick, should be quite suitable for this purpose. Painting with creosote would tend to preserve the life of the silo.

The rooting of the manure by pigs does not add anything to its value, but it may prevent excessive fermentation. Cow manure mixed with horse manure will accomplish the same purpose. The stored portion of the manure tramped on by live stock hastens decomposition of the bedding.—Hester's Dairyman.

DE LAVAL

CREAM SEPARATORS

Don't Delay Buying One a Single Day Longer

If you are selling cream or making butter and have no separator or are using an inferior machine, you are wasting cream every day you delay the purchase of a De Laval.

There can only be two real reasons why you should put off buying a De Laval; either you do not really appreciate how great your loss in dollars and cents actually is or else you do not believe the De Laval Cream Separator will make the saving claimed for it.

In either case there is one conclusive answer: "Let the De Laval agent in your locality set up a machine for you on your place, and see for yourself what the De Laval will do."

You have nothing to risk and a million other cow owners who have made this test have found they had much to gain.

Don't wait till Spring. Even if you have only two or three cows in milk you can buy a De Laval now and save half its cost by Spring, and you can buy a De Laval machine for cash or on such liberal terms that it will actually pay for itself.



DE LAVAL DAIRY SUPPLY CO., LIMITED
173 WILLIAM ST., MONTREAL 126 JAMES ST., WINNIPEG

Do You Want Him?

He is a youngster out of a 26-lb. dam (Holstein). He is out of my great herd bull, Prince Hengerveld of the Pontiacs.



The first daughter of this bull of mine, as here shown, Prince Hengerveld of the Pontiacs, has recently finished her test of 7 days, in which she made 402.6 lbs. milk and 16.35 lbs. butter. Considering that this heifer—not on my farm—only got 16 lbs of milk, 12 lbs. of alfalfa hay and 20 lbs. of roots, and you will reckon that this is a very creditable record for a heifer.

I have but the one bull as offered above for sale. Write for full description, or better still come and see him. I am now looking orders for the coming crop of calves. Write me for the one you will want, or arrange to come and see my herd and pick out the dam of a calf you will want.

Remember that the Manor Farm is easy of access from Toronto. Take the Metropolitan Electric cars and ask the conductor to put you off at

THE MANOR FARM
GORDON S. GOODERHAM, - - BEDFORD PARK, ONT.

AD. TALK

LXII.

Pictures always attract.

When properly done in advertisements they explain also and get in their work in an instant. A good illustration will get even him who runs, and give him an idea better than could hundreds of words in type.

Coupled with an attractive price, an illustration can aid in making a most effective advertisement.

Look through this issue of Farm and Dairy noting the various ads. that have pictures in them. Invariably you will be first attracted to the illustrated advertisements.

For a new thing being advertised pictures are generally quite invaluable.

Note the Heller-Aller ad. of a Tank Heater on page 7 this issue. The cut of that heater conveys to a reader a clear idea of the device, and makes him familiar with it. The same result could not be obtained with type alone. Without the illustration much larger space than this small 80 line ad. would be required to do the work that this small ad. is doing.

One great reason for the advantage of illustrations in advertising is the fact that "we have child minds. No amount of complacency can dodge this fact. The child mind requires an illustration, whether it be in the form of a parable, a simile, or a picture."

To give the price, too, is good in any advertisement where this is possible. In fact, you can't successfully sell any commodity through advertising without some-thing mentioning and featuring a specific price.

The Heller-Aller people, in the adv. of the Tank Heater under discussion, recognize this fact. They mention price.

It is highly probable that you, dear reader, can make your ads. more resultful by placing in them illustration. When practical in your case it will pay to mention price.

And when it's prosperous Dairy farmers you want to reach, over 16,000 of them, why have your ad. in Farm and Dairy,—

"A Paper Farmers Swear By"



CALVES

Soon Eat
Their Heads Off

WHEN YOU FEED THEM
ON NEW WHOLE MILK!

Save Money

And economize greatly on the milk and raise healthy, thrifty, vigorous calves at the lowest possible cost, by feedings

CALFINE

THE STOCKMEN'S FRIEND
(Made in Canada)

When buying Calfine, you get a Canadian product, pure, wholesome and nutritious, and have no duty to pay.

Get a trial bag of Calfine. Your dealer has it, or if not, send \$2.75 to us and we will ship you 50 lb. of Calfine as a trial, and we will prepay the freight to any station in Ontario, South and East of Sudbury.

Send to-night for your trial order of Calfine, and use it on your fall calves. They will thrive on it in a way that will surprise you.

Calfine will save you money

CANADIAN CEREAL AND
MILLING CO., LIMITED
Toronto, Ontario

Cheese Department

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

Harvesting the New Ice Crop

By L. C. Corbett in U. S. Bulletin.

In order to keep so perishable a commodity as ice it is necessary in the construction of a storage structure to consider carefully those physical and mechanical principles which underlie its preservation. (1) To keep well, ice must have a minimum surface exposed to the air or to the packing material. This is most easily accomplished by piling the ice in the form of a chute. A mass of ice 12 by 12 feet exposes less surface than the same tonnage piled in any form less than that of a cube or of a globe. (2) The keeping of good ice depends upon the completeness of its insulation, whereby it is protected from external influences, such as heat and draught. (3) Drainage is important because the lack of it interferes with the insulation. (4) The ice itself must be packed so as to prevent as completely as possible the circulation of air through the mass, the more nearly the mass of ice approaches that

of a solid cube, both in shape and texture, the easier, with good drainage and insulation, will be the keeping problem. The keeping of ice, then, depends upon the shape of the mass, its insulation, its drainage, and its solidity.

CLEARING THE ICE FIELD
If the ice field is covered with snow the formation of ice will be retarded as the snow acts as a blanket and raises the temperature, thus retarding the ice formation. If the ice sheet is sufficiently thick snow will fall upon it, the snow must be removed before harvesting can proceed, or if, on the other hand, it is desirable to increase the thickness of ice after the snow falls, the field may be flooded and the snow saturated with water, which is allowed to freeze, thus adding a layer of snow ice. Flooding of small fields may be accomplished in either of two ways: (1) By "overflowing," which consists merely in conducting water to the field, or by piercing the ice field here and there with a bar or auger, to al-

low the water to force itself to the surface and gradually to saturate the snow.
Snow may be removed from small fields, when necessary, by means of shovels, but upon large fields it will be economical to use horsepower scrapers. A simple plank scraper will do.

When the ice is stored commercially the cakes are floated in large areas until near the channel, where it is piled up in shallow basins by means of the plow by attaching to it a light wire cable or rope and operating it from the bank by horse power.

On fields where ice is stored commercially the cakes are floated in large areas until near the channel, where it is piled up in shallow basins by means of the plow by attaching to it a light wire cable or rope and operating it from the bank by horse power.

On fields where ice is stored commercially the cakes are floated in large areas until near the channel, where it is piled up in shallow basins by means of the plow by attaching to it a light wire cable or rope and operating it from the bank by horse power.



In the Land of Our Greatest Competitor for Foreign Trade

New Zealand is steadily and surely enlarging its export trade in dairy produce. New Zealand cheese, a few years ago a negligible quantity on the British market, is steadily displacing Canadian cheese and recently has commanded a premium in price over our product. New Zealand butter is being sold in the most important markets in Canada. Notice the substantial style of factory our competitors erect.

low the water to force itself to the surface and gradually to saturate the snow.

Snow may be removed from small fields, when necessary, by means of shovels, but upon large fields it will be economical to use horsepower scrapers. A simple plank scraper will do.

HARVESTING THIN AND THICK ICE

Ice not over four inches thick and ice from six to 15 inches in thickness require very different methods of procedure. The thin ice in general will be broken into more or less regular cakes, which will be loaded as best as they may into sleds or wagons and hauled to the shorehouse, where they may be arranged in layers and adjusted as closely as possible, the spaces between the cakes being filled with crushed ice or snow in such a manner as to cause the whole mass to freeze as nearly a solid block of ice as possible. It is more difficult to store and keep ice of this character than that harvested in regular cakes.

Harvesting ice from six to 15 or more inches in thickness permits the use of tools and implements that find no place in harvesting thin ice. The field may be laid off so as to cut the cakes to standard dimensions of 22 by 22 inches or 22 by 32 inches. Oblique cakes have some advantages over square ones, as they can be lapped so as to break joints as they are stored, thus reducing the possibility of the formation of air passages in the ice heap.

TO GET REGULAR CAKES

In order to obtain clean square or rectangular in form a square made from light strips of beards with straight edges may be used. A square with sides 12 to 16 feet long will serve the purpose nicely. Draw a line across the ice field parallel with each side of the square and with a hand marker or with a saw accurately follow this

or hauled off, floated to the loading platform and loaded upon it by hand or by horse power. The extent to which labor-saving devices may be introduced is measured by the cost of labor, the extent of the harvest, or the dispatch desired.

The Salary of the Maker

C. W. Norval, Dundas Co., Ont.

I am not habitually a knocker, but I would like to register one knock just the same. It concerns the salaries of cheese makers. I don't believe that a brainsy young fellow can afford to be a cheese maker now-a-days. He can make more money in almost any other line of work. As a result too many of the boys now going into the business are of a distinctly inferior class. Some of them spend a couple of years around a cheese factory without paying any particular attention to the business and then call themselves cheese makers. There are the fellows who are making cheese in our small factories, turning out a poor article that will do little to establish a good reputation for our cheese.

The same applies to the salaries of our dairy instructors. I don't complain my instructors. I don't complain which the factories are in a comparatively small area and I can reach them all from my home without undue expense. Some of the other instructors, however, in districts where dairying is not a specialty, have to cover parts of three counties, traveling a great deal by train and their expenses must be tremendous.

When we ask for an increase in pay for our dairy instructors we are told that there are lots of men to fill the positions. But are they the best men? The dairy instructors have a great big influence on the dairy industry and only the best men should be employed, and to get good men for the cheese factory and for the road the price must be paid.

IF YOU

are at all interested in

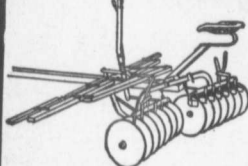
Home-Mixed Fertilizers

I would like to send you my book on the subject. It contains formulas and plenty of information for farmers who want to get the most and the best for their money. The book will be sent free upon request.

Dr. William S. Myers

Director Chemical Nitrate Propaganda
17 Macdonell Ave., New York
No Branch Offices

The "Bissell" has the capacity



Because of its capacity, time after time the "Bissell" Disk Harrow has done DOUBLE THE WORK in field competition against all competitors, under the same conditions.

The special shape of the "Bissell" plates cause them to enter the ground naturally and TURN THE SOIL EASILY. Steel scraper blades meet the

Disk Plates chisel fashion and keep the plates clean of trash by movable coil irons—the only Harrow that has this feature. "Bissell" Disk.

The seat is placed back on the Harrow so that the weight of the driver when riding balances over the frame and REMOVES NECK WEIGHT. The hitch is well back, MAKING LIGHT DRAUGHT.

Search the Continent over and you will not find a Harrow with such cutting capacity, easy draught and correct proportions as the "Bissell." A postcard to Dept. R will bring you a free catalogue.

T. E. BISSELL CO., LTD., ELORA, ONT.

ston v
Montr
per bo
Bing
haul,
box o
the ne
in a
ters r
to pu
durer
ure, v
versely
move
hands
that r
ge in
be bor
this vie

Not
been sh
the fir
ports i
from B
\$18,790
the can
dairy p
Ruddie
of but
only \$1
imports
used at
builders
of shipm
cover
trade.
posed t
the dair
fron
condition
duction.
CHAS. T.

A Comb
situated
from
condition
duction.
CHAS. T.

CHEESE
One of t
tario. On
session.
\$10, 50,
FR

WANTED

By the
Co. for
by the
credent
up to
D. H. FR

Mechanic
Also one
tuerizer
as a D. A.

A CH
In good
St. Paul,
good pap
apply to
J. A. THIST

BELL
300,000 fe
good man
sizes, good
greenhouse
also encour
valleys, can
trees, all
value. Can
Inquiries
85 Queen



GOOD thoughts are best guests and should be heartily welcomed and most sought after; like rose leaves they give out a sweet smell if laid up in the jar of memory.—Spurgeon.

The Letter of the Law

(Farm and Home)

"M^A'S eyes look like lighted lamps," commented daughter Ada, looking approvingly at her mother, as that personage moved with rather more emphasis than her homely tasks seemed to warrant around the family domain.

Pa Talbot looked up uneasily. There had been times when those "lamps" had burst suddenly into scorching fire and consuming flame, and he wondered if his critical comments of the previous hour had been responsible for the scintillations that, now his attention was directed to them, held an ominous threat of possible trouble.

"It's easier to run than fight," he thought, and aloud remarked: "Guess I'll go down to Alvin's for a while; I hear he has a colt he wants to sell."

No one replied. This was a sure sign of brewing storms, so without more delay he continued his journey.

The moment he was out of the house Isabel began: "Oh, Mummie dear, can't I have a new dress for the concert? I'm ten years old next Tuesday, and I never, no never, have had a new dress in my whole life. The girls, some of them anyway, say mean things about you and papa, and they look at each other and smile whenever I wear one of my made-over rigs. I don't mind wearing them every day much, but all the class but me are going to have new suits for exhibition, and I'll be the only one that will be different. That hateful Maud Anderson will be sure to pick me if I'm going to have a new dress from your second lot, or something just as mean. I do wish I could have a new dress for the exhibition day."

Mother's eyes lit their fierce glare. They grew, instead, dewy and misty, and "ma" turned away hastily, without replying to her daughter's plea. "I'd like a new suit, too," chimed in the twelve-year-old boy, who had been an eager listener to his sister's remarks. "If Uncle Tom hadn't give me a suit on my birthday, I could say the same as sis: that I'd never had a new rig-out. Fred Fuller says that pa is the biggest tax-payer in town. Is he? Then why doesn't he let us have some new duds once in a while? What's the matter with him anyway?"

Somewhat, despite the fact that so coarsely did not demand it, pa had so imbibed the idea that some things that his mother had done his wife ought also to do, that he had laid down the rule and made it a law that his children's garments must be made from these cast off by his wife and himself.

He excepted shoes, but he was wont to say in the most honest and blundering judgment: "If my dear mother could clothe six children from party worn material, why can't my wife have gumption enough to fix up for two? Anyway, she's got to," he'd twined doggedly and with that com-



and smiling: "I will; I will cut down our clothes for them until you tell me to stop."

"That won't be till they're lots bigger'n they are now," said the stubborn man, both rejoiced, however, that at last his wife had come around to his wise and thrifty way of thinking. "May be sooner than you think," murmured his wife; "you poor mistake creature!"

Graduation day came. The Talbot children looked very spruce and nice, Isabel in a pretty blue dress and ribbons, and Harold arrayed in a spotless blue serge, as much like the other boys' garbs as peas in a pod.

Pa Talbot as first accepted their good looks as a tribute to his own sagacity and his wife's dexterity and obedience. He recalled Isabel's remark about the "lighted lamps" with a feeling of pride, that he had not allowed her anger to override his good judgment. Then, suddenly, a horrible fear occurred to him. Where had ma obtained that blue material that his small daughter was wearing? She had never had a blue dress to his recollection. She was very dark and never wore light blue. Dyed? No; no dyeing had been done at the house since last fall. Could it be possible that she had disobeyed and tried to deceive him? He was so perturbed that he missed all the speech that the



How Many Back Yards are as Neat as this One?

One of the neatest, tiddest farms we have ever seen, is that of Mr. Chris. Bowen, Peterboro Co., Ont. Tidiness on this farm does not stop with the front of the house but is extended all the way around as may be seen by this illustration of one of the side doors.

—Photo by an editor of Farm and Dairy.

blue, too, like Daddy Talbot's for all the world, and why couldn't she have a blue dress? Her father listened uneasily.

"Pears as if women folks didn't think of nothing but dress, he commented, but her brother broke their criticism by rushing in with a demand for a blue serge suit to match Ben Tilden's, and pa with a muttered sentiment that they would all ultimately live in the porchouse with such extravagant notions, went off to the post office.

Next day ma went to town. She needed a new dress, she said, and pa was willing.

"Get a good suit, mother," he said, "while you're about it." His wife, with a queer look, half scared, half amused, answered that she certainly would. Pa Talbot approved of her buying good garments, as they left more and better material for his pet "made-overs."

For a week after her journey to town ma was very busy sewing. "No new duds," had been her husband's injunction when she made one last appeal to him. "You have plenty of clothes, and I don't begrudge them, either. You've surely got plenty of things to cut down, and if the boys needs a suit, take one of my old one and fix it up for him."

"Very well," said ma, her face calm

visiting minister was making. Going home he scarcely spoke, though ma's sharp eyes saw him take surreptitiously a corner of Isabel's dress between forefinger and thumb and test its texture.

She sniffed audibly, and something of the "damp" flame came into her big brown eyes.

As soon as the children were abed pa accused her of her duplicity.

"That's brand new cloth in Isa's dress," he said; "you can't fool me."

Ma Talbot smiled grimly. "Come here," she said, leading the way to the sewing room. She opened a drawer. The remnants of a light blue suit were there. "I made Isabel's dress from a suit of mine," she said calmly; "there is what is left of it."

"You never had a blue suit," he declared, lifting as he spoke the mangled pieces of what had surely once been a woman's blue linen suit.

"I bought it," she answered, "the last time I went to town." Light burst upon the bewildered man's mind.

"Do you mean to tell me," he demanded, "that you bought a linen suit and then cut it up for that child?"

"That's exactly what I did," his wife answered with a calmness she did not really feel in the uncertainty of

how her husband would take her stratagem.

He was apparently so amazed as to be speechless for a season during which he fingered feebly the pieces of the cut-up suit. Then recovering his senses he asked: "What did the suit cost?"

"Fifteen dollars," replied ma; "you told me to get a good one, you know."

Pa gasped. He looked up angrily, but ma's danger signals were out. Pa had never seen her eyes so bright before; for ma was determined to win this time at all costs, realizing that their children's happiness depended on her courage.

Pa's mouth opened once or twice, but no words came. At last he turned suddenly and left the room. Ma wore him striding down the road toward the village, and she wondered where he could be going and what his object could be. She felt very uneasy and hurried to the front window again, an hour later, she saw him returning. Then she sought the sitting-room and was placidly mending socks when he came.

She would have smiled if she had known where he went. Straight to the village store, where with affected indifference, he inquired the price of blue linen, "the very best," he said, and then took the front window, an old girl would need for an outfit. The knowledge gained, he had occupied some time in computing the difference between this cost and that of his wife's garment.

The perspiration poured from his forehead as he realized that a good ten-dollar bill had been sacrificed in the race his wife had adopted to secure her way, and at that he had intended saying some severe things.

"But what's the use," his good angel interposed; "she know you'd find it out. And say, wouldn't everybody laugh at you if they knew it? Better swallow the dose like a man and not so you won't need another."

He obeyed the advice. When he walked in ma knew her troubles were over, and she almost wished she did not have to inflict another blow. She was wondering how to do it and give the least suffering, when pa himself gave her the chance.

"It's a wonder," he said, somewhat bitterly, "that you didn't get a new suit for me and cut it up for Harold."

"I didn't need to," said wife, smiling, though with inward qualms of remorse. "I took your best suit. It was so nearly new that he was quite satisfied."

"My best suit," groaned the forlorn man. "Why, it was good for two years, yet I had to wear it, and I gave thirty-five dollars for it."

"Yes, it was pretty good," replied Ma, wilfully misunderstanding him. "If it hadn't been, I might have had to buy a new one. I'm fully converted to your ideas now. Benji thought the children looked as nice as any of their mates to-day."

"They ought to," wailed the desperate man, "with a good fifty dollars on their backs. Say, if you ever sell this to a living creature I'll light out for Alaska or some such place! And hereafter you buy stuff for those youngsters, do you hear?"

Ma peacefully replied that she did and had no idea of selling any more, but meekly added that she had just as soon keep on "cutting down and making over" if Benjamin preferred.

To which bit of submission he only replied by a shrug, a snort, and a look that was plain to see. Benji, like most of her sex, relieved her feelings by throwing down the unoffending socks and bursting into tears.

"Oh, I know it was dreadful of me," she said, "but I was in the right and I just thought I'd poor Benjamin! A fifty-dollar lesson was cheap—I could have made it a hundred, if I'd wanted to."

The Upward Look

Our Treasures—Where are They?

Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal;

But lay up for yourselves treasures in heaven, where neither moth nor rust doth corrupt, and where thieves do not break through nor steal:

For where your treasure is there will your heart be also.—Matt. 6: 19-21.

These words are part of that wonderful sermon which Christ preached on the Mount almost two thousand years ago, and yet they have not been forgotten, but are as fresh and full of meaning to-day as they were at the time of Christ. And we should let these words sink deep into our hearts to-day just as His followers did. In fact, we sometimes think that in this rushing, bustling life that we live, there is more to tempt us to lay up treasures for ourselves upon earth instead of in heaven, than there was in olden days when Christ lived on earth. And it is an easy matter to deceive ourselves in the laying up of treasures in heaven when we give to the poor or to those in the foreign field or in various ways that we may give of our means and

time. But does it not depend altogether on the motive from which we perform these acts? If we are doing them to be seen of men and to receive their praise and commendation we are not laying up treasures on earth. We read in Matt. 6:1, that Jesus says: "Take heed that ye do not your alms before men to be seen of them; otherwise ye have no reward of your Father which is in heaven."

We have recently read a synopsis of Henry Van Dyke's late book, "The Mansion," and will touch upon it briefly, as it fits in nicely with our discussion of these verses. "This book describes a man who had spent his life in busily laying up treasure on earth; while all the time he imagined he was laying up treasure in heaven. His life was crowded with deeds that seemed to himself to be good, and he admired himself so much that he naturally thought God would admire him, too. He indulged in no vices—nothing that could open his eyes to his own simplicity was allowed any place in his life. He was a rich man, and gave liberally to many charities, but each gift was really a gift to himself—an investment for his own benefit. He was always looking out for the return to himself of any bread which he cast upon the waters. Nothing bestowed in 'charity' was to be considered to be wasted if it redounded to his own credit, but he was doubtful about money given to foreign missions, because, he said, 'you never

hear from it in any definite way.' He did not dream of putting any money into God's hand, for Him to use for the spread of Christianity—he had no confidence that funds committed to God's care were in safe hands. His boast was: 'I can honestly say that there is not one of my charities that has not brought me in a good return, either in the increase of influence, the building up of credit, or the association with substantial people.'

"One evening he was sitting beside the library table on which was a pile of newspaper clippings in which his name was mentioned in connection with various charitable associations. Falling asleep he dreamed he was in the midst of a white-robed company of men, who were led by a mysterious Guide, each to his own beautiful mansion in the New Jerusalem. When the dreamer began to be shown the mansion prepared for him, he was led into a bare and lonely field. There stood a tiny hut, built of scraps of material, put carefully together as if to make the most of the poor fragments. There was something pitiful and shamefaced about the hut. It shrank and drooped and faded in its barren field, and seemed to cling only by sufrage to the edge of the splendid city. When he pleaded that there must be a mistake, that the long and faithful service of one so well-known and devoted could not be repaid like that, the only answer was: 'That is all the material you sent us.' The man

insisted that all his life had been spent in acts which would supply material for a heavenly mansion. He had built a school house, the wing of an hospital, several churches, etc. But the Guide told him these were all marked and used as a foundation for his name and mansion in the world. "Did you not plan them for that?" the Guide asked. "Were not all these carefully recorded on earth where they would add to your credit?" They were not foolishly done. Verily, you have had your reward for them. Would you be paid twice? We have saved and used everything you have sent us.'

"When the wretched man asked how he could have done better, and what things were of value there, he was told: 'Only that which is truly given. Only that which is done for the love of doing it. Only those plans in which the welfare of others is the master thought. Only those labors in which the sacrifice is greater than the reward. Only those gifts in which the giver forgets himself.' Are we not liable to make the same mistakes in our lives as did the man in Henry Van Dyke's story? What higher ideal can we have than as one writer put it, "the honest determination to be better than we seem," instead of a desire to seem better than we are."—R.M.M.

A hundred men make an encampment, but it takes a woman to make a home.



May be the dough had forgotten to rise.
 Or had risen quickly overnight and fallen again—
 To rise nevermore.
 'Twas weak flour, of course.
 Meaning weak in gluten.
 But FIVE ROSES is strong, unusually strong.
 With that glutinous strength which compels it to rise to your surprised delight.
 Stays risen too.
 Being coherent, elastic.
 And the dough feels springy under your hand.
 Squeaks and cracks as you work it.
 Feels the feel of a FIVE ROSES dough.
 Note the wonderful smooth texture—soft—plastic.
 Great is the bread born of such dough—
 Your dough!
 Try this good flour.

Five Roses Flour

Not Bleached Not Blended



MADE BY THE WOODS MILLING COMPANY, LTD., LTD. MONTREAL

DO YOUR RUBBING SCOURING SCRUBBING WITH Old Dutch Cleanser

HAS NO EQUAL FOR CLEANING METALS WOOD

MANY USES & FULL DIRECTIONS ON LABEL. SIFTER-CANDID.

THE LARGE ATTENDANCE THE ELLIOTT Business College

Car. Yonge and Alexander Sts., TORONTO. There is no other result of accident. Toronto, Ont. is our reason for it. We have room for more. Enter now. Catalogue free.

Capable Old Country Domestic

Parties arriving about January 14th and 26th

APPLY NOW

The Guild, 71 Drummond St., Montreal and 47 Pembroke St., Toronto

MAILED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 25th February, 1913, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week each way, between Peterboro and Warsaw, from the 1st April next.

Printed notices, containing further information as to conditions of proposed Contract, may be seen and blank forms of Tender may be obtained at the Post at the office of the Post Office Inspector, Kingston.

J. MERRICK, Post Office Inspector, 30th December, 1912.

YOUNG MEN WANTED IN THEIR VETERINARY profession. Catalogue free. Grand Rapids Veterinary College, Dec. 16, Grand Rapids, Mich.

NO MORE WET OR COLD FEET!!

With Health Brand Clogs on, the man or woman who works in the wettest, coldest places always has warm, dry and comfortable feet. Try a pair yourself this winter.

Feet-Lined CLOGS (As illustrated) Fine leather tops, hard wood sole and heel, cozy lined with warm felt. All sizes for men and women, delivered, all charges paid. **ONLY \$1.75**

Higher 3 buckles \$2.25
High-legged Wellingtons \$2.50
Children's lace, 7 to 7 1/2 \$1.50
Or if you wish to learn which of these wonderful Clogs before ordering, write to us for catalogue booklet, telling how Health Brand Clogs are made, etc., etc. Dealers, write for proposition.

CANADIAN FELT-LINED CLOG CO.
Dept. D, 263 Spadina Ave., Toronto, Canada

My Friend

"I am the best pal that I ever had I like to be with me. I like to sit and tell myself Things confidentially.

"I often sit and ask me If I shouldn't or I should. And I find that my advice to me Is always pretty good.

"I never got acquainted with Myself till here of late. And I find myself a bully chum I treat me simply great.

"I talk with me and walk with me And show me right and wrong.

THERE is no happier nor more cozy picture of home life than the little family group gathered about the evening lamp, while some member of it reads aloud. These evening readings can be made educational and develop in many ways, which the eager feminine mind, eager for improvement, will easily devise.

I never knew how well myself And me could get along.

"I never try to cheat me I'm as truthful as can be. No matter what may come and go I'm on the square with me.

"It's great to know yourself and have a pal that's all your own. To be such company for yourself You're never left alone.

"You'll try to dodge the masses And you'll find a crowd's a joke. If you only treat yourself as well As you treat other folk.

"I've made a study of myself Compared me with a lot. And I've finally concluded I'm the best friend I've got.

"Just get together with yourself And treat yourself with you. And you'll be surprised how well yourself Will like you if you do."

—Author unknown.

Kitchen Comments

Mrs. E. Snyder, Dist. Pres., Women's Institute, Oxford Co., Ont.

How often we hear women remarking that they would be able to accomplish so much more than they do if they had proper conveniences in their kitchen. I believe a kitchen can be made very convenient with very little expense if one is capable of managing properly.

The first thing I want in my kitchen is plenty of light. And this is one of the cheapest conveniences we can have, especially daylight. Some people claim that they darken their kitchen to keep out the flies, but give me the light, sunny kitchen and I will use other methods to extinguish the fly.

It is necessary to have a large kitchen on the farm as usually there is more or less hired help. The kitchen should be provided with plenty of hard and soft water piped in from outside wells. I would not like water coming from a well underneath a building.

A ROOM IN HOT WEATHER A good sized refrigerator is very handy in a kitchen, especially if one has plenty of ice. Some people prefer a dumb waiter, but not dumb). I like a wailer, but not dumb). A large kitchen cabinet is a great labor saver as one can prepare all

their pastry for the oven with but little work. It is rather a plain store for the kitchen, one that is easily polished, (not an ornament). A woman can use her spare moments in a much more profitable way than in continually cleaning a stove. The woman that continually scrubs and scours is sure to be a crank and she is not a convenience in any kitchen. What men need is a cheerful all round good housemate and one that can cook a good nourishing meal. I believe one way to keep men in good humor is to "feed the brute." If we do this they will not consider us as farm servants, but will be willing to allow us the egg money at last. There are some noble women in

South Oxford who, strange to say, have married narrow-minded men. Those who have been so unfortunate, however, should not judge all men alike but should strike a medium and if they can possibly reform their husbands, they will find them conveniences in their kitchens.

"If You Can't Smile"

In the anteroom of a certain hospital was once seen a notice posted in a conspicuous place for the benefit of visitors and it read something like this: "Don't speak a discouraging word here; keep your sad looks for other places, and if you can't smile, don't go in." Don't you think that for hospital visitors and why should it not be applied to other than those who visit such places?

I have sometimes thought that if we had more ready smiles, more hearty laughs and everyday cheerfulness in our homes there might be less need of hospital visitors. Give the little ones the bright smiles, fathers and mothers, though you may not always feel like it; they turn to you as flowers to the sun, and we are failing sadly as parents if we allow them to grow up in a gloomy, fault-finding atmosphere. A naughty child, when expecting punishment of some kind, is often completely conquered by seeing a sweet, forgiving smile on his mother's face, when a scolding or whipping would have only hardened him.

Suppose a phonographic record could, without our knowledge, be made of the exact words and tones we use during just one day to these in the home. Then, the stillness of the night we could hear that record reproduced?

LIFE WORTH LIVING

The old people need the sunny smile and the cheery greeting; they have gotten where they feel, may be, in the way, not in the heart, and the future has not the brightness for them that it used to have, but a little attention paid them by someone younger, a little thoughtful kindness and the hopeful thought instilled into them that the best is yet to be, and that they are still needed in the world, then the dark dependency vanishes and life seems once more worth the living.

About the children once more. Let us always try to send them off to school with a cheery "good-by." The teacher will find them better pupils because of this, and they and we will

have a happier day for it. Let us help to store their minds with cheerful memories of their home life, so far as possible, and in after years these recollections may be their source of the greatest pleasure and comfort.

Some people are born with the happy, hopeful temperament, and fortunate are they who possess and but they who are naturally dependent may cultivate the opposite spirit by a cheerful habit of thought; we surely may be what we will in this respect. I believe that it is the sunny, happy-hearted people who are loved the best, who most influence us for good. The short and simple obituary ("She was always so pleasant") seems to me a beautiful one and she who merited it lived a life which we might well emulate.—Miss C. S. S., Rural New Yorker.

Situations Wanted

Experienced Farm Hands and Married Couples require positions. Send full particulars with stamped addressed envelope for quick reply to: **FARM EMPLOYMENT AGENCY**, 140 Victoria Street, TORONTO.

Farm Help

Farm Laborers will again be brought out this year by our Immigration Department.

Also Boys and Domestic Servants

We are making a special effort this year in country districts and will have the best class of immigrants. We speak desirable places for these.

Apply early for application form to: **The Salvation Army Immigration Dept.**, Albert Street, TORONTO, Ont.

Any little girl can do the cleaning with **MAXWELL'S Favorite Churn**.

It makes the smoothest, richest, most delicious butter ever last.

It rotates her bearings — and hand and foot levers — make churning as easy work for a child.

All sizes from \$4 to \$30.00.

Write for catalogue if your dealer does not handle this churn and Maxwell's Churns.

David Maxwell & Sons, St. Mary's, Ont.



RICE-KNIGHT Ltd.

200 candle power of pure white light brilliant for 100 hours. No smoke, or odor. No wicks to trim. No soot. Absolutely safe — fully guaranteed.

Write to order for circular. B. Toronto or Regina



Jan...
I tru...
think...
Club...
electr...
country...
were the...
Baptist...
when Su...
the Pres...
late, but...
have got...
the cong...
steadily...
think an...
On makin...
attendanc...
one; also...
Arriving...
Apply: B...
DRAWER I...
CA...
AROUND...
EMPRESSE...
The Imp...
tar, Villie...
reading vi...
Singapore...
Nagasaki...
Vessel reg...
Empress...
April May...
Most dire...
sailing in...
from the...
RATE FOR...
of the...
of "Empres...
Vessel reg...
Agents or...
Valuab...
roofing...
in mind...
free of ch...
Just writ...
card the...
give you...
address, a...
particular...
sent by re...
mail.

ay for it. Let
 air minds with
 of their home
 and in after-ya
 to be to their
 atest pleasure
 are born with
 the temperment,
 who possess and,
 naturally depend
 the opposite spirit
 of thought; w
 as we will in th
 ave that it is d
 ed people who an
 o more influence
 short and simpl
 ity, and so pleas
 a beautiful im
 ed it live a lif
 el emulate—M
 w Yorker.

OUR HOME CLUB

The Rural Church

I trust that "The Pastor" will not think that I am trying to infringe on his territory if I write for the Home Club a few of my ideas on rural churches. I recently visited a small country community in which there were three churches, Presbyterian, Baptist and Methodist. As usual on Sunday came around I attended the Presbyterian church. I must have been the only one there. I have gotten there early so slim was the congregation. The church could easily have accommodated eight or 10 times as many people as were there. On making enquiry I found that the attendance that day was an average one; also that the attendance at the

other two churches was about the same. All three churches had poor, underpaid ministers. All of them had such scant congregations that all of their efforts had to be devoted merely to the maintaining of their church and minister; little energy or money was left for missionary or social work. All of the people of these three congregations claim to serve the same God and all are working to get to the same Heaven. And yet they are perpetrating little sectarian differences to hold them apart; and these same differences are slowly strangling the

"THE church and the farmer are two of the most important institutions in the world. In fact they are both indispensable. Through the one the bread of life is dispensed, and through the other the staff of life—food for the soul and food for the body.—Rev. Matthew Brown McNutt.

cial and religious life of the community.

How much better it would be if all of these three churches were to unite and so make one fair sized congregation, and thereby supply a good minister who would be both money and what in my opinion is more important still, the whole community. The church as a social centre in the opinion of your humble "Philosopher" would do much to solve the problem of keeping the young people in the country and to maintain their interest in church work.

And what about these sectarian differences? In a recent copy of "Successful Farming," the editor tells of how the Presbyterian and Christian churches of Griswold, Iowa, united three years ago under the name of the Union Church. They adopted this simple creed, or articles of faith: 1. Christ is the head of the church; 2. The Bible is our rule of faith and practice. 3. Individual interpretation of the Scriptures, the privilege and duty of all. 4. Christian character the test of fellowship. 5. More and more of the world to be saved by the applicant. 6. The union of all followers of Christ.

From these two struggling churches there arose a strong one of about 200. Other churches in the town did not even still struggle on doing inefficient work in a way that is unsatisfactory to themselves. They have travelled fairly extensively in my own country of Canada, and I know that the contention I have mentioned is common. Why not cast aside our narrow religious creeds and live as we expect to do in Heaven? "The Philosopher."

Suggestions for Home Decoration

By the Instructor of Domestic Art, N. Y. D. C. To make the home serene its best purpose with reference to home life, comfort and economy, there must be orderly arrangement and correct selection of furnishings with reference to their beauty and use. To accomplish this the following essentials must be considered: The plan of the house, the accoutre of its rooms, whether it is to be a town or country house, and the needs of its occupants. We give a few of the essential principles to be

concerned in the furnishing of a moderate sized home in the country.

There is nothing that causes more discomfort and irritation than a wrong use and combination of color. The eye is the organ easily irritated by color and its irritation affects the whole body. For example, perhaps there is some room in your home that does not suit you. It seems too dark or else perhaps you cannot describe just what reasons you have for disliking that particular room. It is not perhaps the color or combination of colors which to you are irritating? Or perhaps it is bad arrangement of furnishings.

POSITION OF ROOM

The exposure of the room, whether it is north, east, south, or west, should decide the color to be used on walls and floors. A north room which is always rather dark, should be finished in light, warm colors. Rose pinks, lemon yellows, and yellow tans with brown as the contrasting color, are very good. The floor coverings should be much darker than the walls and the ceiling should be much lighter than either. A bit of brightness should be used in the furnishings if possible. Such a room costs no more than one finished in dark, sombre tones and will be a room pleasant to live in.

If the room has a south or easterly exposure, the colors used can be softer or of the bright light with without. Soft blues, pleasing greys and grey-greens are especially good. Grey-green is a very suitable color for a living room as it has a very restful effect upon the eye. Brown, which combines well with green, can be used to good advantage in the furnishings. Plain walls make a better background than walls covered with figures which in wall papers are often large and ugly. Cartridge paper, calcimine and alabaster shades or paint are suitable wall coverings. Many of the calcimine and alabaster colors come in packages in powder form which may be mixed with water until desired shade is obtained; this can be tested by trying on a clean board and allowing to dry. Alabaster shades are preferable to calcimine. Paint is often used and has the advantages of being washable.

KITCHEN, BRIGHT AND CHEERY The kitchen which is really the most important room in the house, as the housewife spends so much of her time there, should be made as bright and cheery as possible giving the idea of absolute cleanliness. White, or calcimine or alabaster, are best for walls. Blue or oil paper are all used. They are old cheap finishes. Oil cloth paper can be washed and makes a most satisfactory covering.

Bedrooms should be treated with much brighter colors than other rooms of the house. The exposure must be considered but light shades of cool colors are used even in very bright rooms. Light greys with rose color make a very interesting combination for easterly rooms. Inexpensive cottons, dotted muslins, serims and pretty lawns can be used for curtains. Avoid cheap patterns which will spoil an otherwise delightful room. Light pinks, blues, yellows, lavenders, greens and rose colors, are also pretty bedroom colors. Dark and ugly furniture can be transformed by white paint or enamel. Advertisements of enamels can be found in any of the magazines. They are not expensive and can be applied at home. Japanese is perhaps the best known. It comes in cans of almost any size from 10 cts. to 50 cts. A 10-cent can will just about enamel a bed.

Every piece of furniture should give the idea of lightness, comfort and beauty. Mission and other plain styles are very good as they combine the good qualities of beauty, simplicity, comfort and economy.

The Sewing Room

Patterns 10 cents each. Order by number and size. Children give age; for adults, give bust, shoulders, waist and waist measure for skirts. Address all orders to the Pattern Department.

SHIRT WAIST IN MANNISH STYLE, 7831

The plain shirt waist is always needed. This year the mannish finish will be exceedingly smart. This waist can be made with or without the pockets and it would be well for each woman to choose the style she finds more becoming for fashion sanctions. Both are rather marked tendency toward the use of pointed collars and this one is smart and are equally correct.

For the medium size, 3 1/2 yards of material 27, 3 1/2 yards 36, 2 yards 44 inches wide.

This pattern of the waist is cut in sizes for a 34, 36, 38, 40 and 42 inch bust measure.

ROUSE CLOSING IN FRONT FOR MISSES AND SMALL WOMEN, 7832

Girls are sure to welcome this blouse for it includes the newest and the latest elaborate. It gives the long shoulder effect which is together it is exceedingly new and excellent. Long sleeves with frills over the hands are being very much worn, but this is liberal and those in three-quarter length. The blouse which is made with front and back means of shoulder and under-arm seams.

For the 16 year size, 2 3/4 yards of material 27, 2 1/2 yards 36, 2 yards 44 inches wide with 1 1/2 yard 27 inches wide for the collar and cuffs.

This pattern is cut in sizes for misses of 16 and 18 years.

GIRL'S BOX PLAIDED NORFOLK DRESS, 7831

Every variation of the Norfolk idea is smart and new. Here is a girl's costume combining a Norfolk blouse with a box plaited skirt and which can be used for both street and serge with trimming of black silk braid would be handsome or serge could be finished with collar and cuffs of Scotch plaid taffeta to be quite in the height of style.

For the 15 year size, 4 1/4 yards of material 27, 3 1/4 yards 36, 2 1/2 yards 44 inches wide, and for the skirt and trimming will be needed 4 yards 27, 3 1/2 yards 36, 3 yards 44 inches wide.

For the shield of contrasting material will be required 5 1/2 yard 27 inches wide.

This pattern of the dress is cut in sizes for girls of 10, 12 and 14 years of age.

A good home made furniture polish is composed of linseed or salad oil and vinegar. Mix well with a stick until the oil does not flow. Apply with flannel and rub off with linen.

Wanted
 Hands and Married
 Women. Send full
 name and address en-

AGENT AGENCY
 est, Toronto, Ont.

Help
 will again be
 by our immigr-

domestic Services
 special offer this year
 will have the best
 We speak desirable

Immigration Dept.
 TORONTO, Ont.

How do the
 with
 HELLS
 cigars.
 are richest, most
 tasted.
 and hard and
 easy light
 and
 full
 your dealer does



power of
 is the brilliant
 less than a
 hour. No
 color. No
 of your name and
 No. 100. No
 not explode
 guaranteed
 any home.
 Star P.

Ltd.
 Regina
 The
 Gall
 Art Metal Co.
 253 Stone Road, Gal. Ontario

YOUNG MEN FOR ONTARIO FARMS
 Arriving February, March, April
 Apply: BOYS FARMER LEAGUE
 DRAWER 126 - WINONA, ONT.

CANADIAN PACIFIC

SPECIAL CRUISE AROUND THE WORLD

EMPRESSES OF "RUSSIA" AND "ASIA"
 (New G.P.S. Pacific Steamships)
 The Empress of Russia will leave Liverpool April 1st, calling at Gibraltar, Villefranche and Port Said, proceeding via Suez, Colombo, Penang, Singapore, Hong Kong, Shanghai, Nagasaki, Kobe and Yokohama, arriving Vancouver June 7th, 1913.
 Vessel remains 15 days in Hong Kong.
 Empress of Asia will sail from Liverpool May 27th, making similar circuit.
 Most direct connection for April lettings is via "Empress of Britain" from St. John, N.B. March 25th.
RATE FOR ENTIRE CRUISE, \$630.10
 inclusive of maintenance between arrival time in England and departure time in "Empress of Russia."
 Get particulars from Canadian Pacific Agents or write "M. O. MURPHY, D.P.A., C.P.E. Toronto"

Roofing

Free Samples
 Free Catalogues

[Free Plans]

Valuable information about roofing of the kind suitable for the building you have in mind, will be sent to you free of charge.
 Just write on a post card the word "Roofing," give your name and address, and full particulars will be sent by return mail.

ar, A. E. Hulst, Ne...
1935, at 37. 7m. 15...
10.87 lbs. equal r...
ter, Edmund Lad 4

Year Class, 1913...
No. 1368, at 37. 5n...
13.16 lbs. equal...
Owner, J. K. Moore...
terle, 1380, at 37...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

Year Class, 1913...
becker, 1476, at 27...
lbs. fat, 12.04 lbs...
Owner, A. E...
Colantha, 1477, at...
ter, J. E. 10.12 lbs...
Owner, Chas. H...
ville, Ont...
Fennell, at 37. 10...
lbs. fat, 10.26 lbs...
Owner, A. E...

HOLSTEIN-FRIESIAN NEWS

The Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association...

A PROTEST AGAINST HIGH FEES

I have just received my notice of the annual meeting of the Holstein Friesian Association of Canada...

It is not the man who is looking for a cheap bull who gets the best of the States...

The United States is the only place we have to go to for blood to improve our Holstein herds...

I suppose that this matter has two sides and I would like to hear the arguments for increased fees if there are any...

While an A. R. O. record is official the work over and carries prestige with it practically no one outside of Canada...

GOO RICE LEAVING

Holstein breeders will regret to learn that Mr. Geo. Rice, Tillsonburg, Ont. will soon leave Canada to throw in his fortunes with the Meadowbrook herd of Ontario at Blenheim, N. Y.

course will be very valuable for our calves. Our separator is run by a turbine water wheel, the power being supplied by the town water.

HOLSTEIN ANNUAL MEETING.

The thirtieth annual meeting of the Holstein-Friesian Association of Canada will be held in Room 1, Fourth Floor, Temple Building, 200 Queen and Bay Streets, Toronto, on Thursday, February 6th, 1913, at 9.30 o'clock a.m.

The annual dues of \$1.00 for 1913 is payable February 1st. Remittances should be made direct to this office, so that they will be fully credited to interest on the records, and acknowledged.

Lowest one-way first-class fare for the round trip and Standard Convention Certificate plan is being offered. Propriety validated certificates will be honored in Toronto for free tickets for the return journey.

TO CANADIAN HOLSTEIN-FRIESIAN BREEDERS

Citizens of the British Empire throughout the world honor the memory of the late Queen Victoria and commend the public sentiment which she evinced by her rules of art in advocating peace and harmony among all the nations of the world.

The recent plan suggested by leading Holstein Friesian breeders of the Dominion to refer all matters of difference between the Canadian and American herd associations to a joint committee composed of three men from each organization is a move in the right direction and will be favored by every patriotic breeder on both sides of the line.

Prosperity to our Dominion and American breeders will follow a peaceful, prompt and practical adjustment of all differences between the Canadian and American breeders with the spirit of the mother country National Peace Jubilee.

PRESENTATION AND ADDRESS TO MR. MANHARD

(Concluded from page 30) without demonstrating our kindly feeling and we wish you to accept this gift as a slight token of an appreciation for your many kindnesses and hope that you may be long spared to enjoy it and thus form a bond to link past connections with the present.

RECORDS NOT BEFORE PUBLISHED

Grace Rose of Campbellton, 16,992, at 27. 4m. 224 cwt. milk, 10.12 lbs. fat, equal to 15.33 lbs. butter. Owner, R. J. Kelly, Tillsonburg, Ont.

FEARED LOCKJAW

In Badly Calked Horse—But Egyptian Liniment Saved Him

The season of icy roads and sudden heavy snowfalls, is an anxious one for horsemen, because it is so easy for shrewd horse to cut himself seriously when straggling in the deep snow.

A bottle of Douglas' Egyptian Liniment on hand then, may be the means of saving a valuable animal for you. It will stop the bleeding at once, but keeps the wound clean and healthy and quickly heals it.

Read what Mr. G. P. Ashbocker, Evan Mills, N. Y., says about it: "Egyptian Liniment has made extraordinary cures for me. One of my horses got badly calked, and everyone said he would have the lockjaw. The wound gashed and broke, and there was a great hole between the hair and the hoof. I used only Egyptian Liniment and the horse's foot was soon sound and well. It made a permanent cure. In my estimation there is nothing equal to this kind of cure for cuts or sores of any kind."

Edward Charles Ryott

AUCTIONEER AND VALUATOR Pedigree Stock Sales and my specialty. Many years successful experience on New Woodstock, Orford Co., Ont., quality lots to get your satisfaction. Correspondence solicited.—178 Carlaw Ave., Toronto, Ont.

FACTS ABOUT THE SOUTHEAST FREE REQUESTS The Southern Railway Mobile & Ohio Railroad or territory offers the finest conditions for farms and homes.

BREEDERS' DIRECTORY

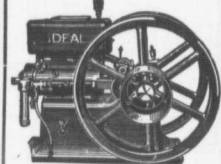
Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines nor for less than six months, or 5¢ insertions.

YORKSHIRE PIGS, all ages, either sex. Obsolete young Boars, 21 for service. Also Sows of all ages, bred and heavy with pigs.—C. Barnhill, Woodstock, Ontario.

Best Your Surplus Pure Bred Holsteins by advertising them in these columns of Farm and Dairy. Costs you only \$1.40 per line. Takes your message to upwards of 16,000 possible buyers.

GASOLINE ENGINES

It is 50 H.P. Stationary Mounted and Tractor



WINDMILLS Grain Grinders, Water Boxes, Steel Saw Frames, Pumps, Tanks, Etc. GOLD, SHAPLEY & MUIR CO., LTD. Stratford Winless, Ontario

SEED OATS FOR SALE

Improved American Banner. Last year, when so many oats were a failure (on account of the extremely dry season) the Am. Banner I had were all good for seed, weighing 24 to 28 lbs. to the measured bushel. I found local demand for every bushel of seed, and did not advertise as in former years, but I am pleased to be able to offer a large quantity of the best and cleanest oats I have ever grown.

A. FORSTER, MARKHAM, ONT.

Give Your Stock a Chance

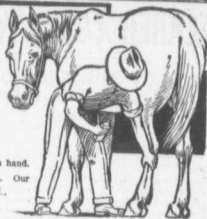
to do their best for you. Special attention in the winter
 months pays, not only now but in the future. The whole
 year. Lack of exercise and heavy feeding of dry foods
 make liver and bowels sluggish, and the animals un-
 healthy and unproductive.

Pratt's Animal Regulator

corrects these conditions at small cost. Treat at our risk!
 25c, 50c, \$1 1-2 lb. post \$1.00

Pratt's Liniment

Can be used as a blister if necessary. Keep it on hand.
 Your money back if it fails.
 25c, 50c, \$1 1-2 lb. post \$1.00
 1115 Avenue F, B. E. & Co. write us.
 Sole agents for the Dominion of
 PRATT FOOD CO. OF CANADA, Ltd.
 Toronto, Ont.



WHEREVER the old wheel- barrow cleaning system is used you find a mussy stable.

It's too much to expect that a man will
 brush and sweep the passage ways every
 time he cleans the stable. He hasn't the
 time for one thing—and it's discouraging
 work for another.

But nowadays we think more about
 clean stables.

We know that dirty stables breed
 disease.

It's up to you, Mr. Farmer, to make your
 stable easy to clean—then it will always
 be clean.

You can learn something about how to do
 this in Dillon's Book on Clean Stables, which is
 sent free to Farmers. Dillon's make a Litter
 Carrier that lightens work about the stable.
 It's an equipment any man can put up, and is
 adaptable to stables large or small. The free
 book explains it fully.

DILLON'S Litter Carrier

Figure it out for yourself.
 Get our free book.

Dillon's sell direct to the Farmer. There
 are no Agents and no Agents' profits. The
 price is the same to all, and lower than they
 would expect for such substantial and well-
 built equipment. DILLON'S BOOK ON
 CLEAN STABLES gives you an exact idea
 of what you can accomplish for a small
 outlay. Write for a free copy. 1

R. DILLON & SON
 OSHAWA, ONT.



Carter's "Quite Content" Pea

Six or seven feet high, pods
 of unusually large size. The
 newest and largest pea in existence. Carter's Catalogues show many new,
 rare and interesting varieties in vegetables and flowers.



ALL who are interested in flowers or gardening, will need the 1913 Catalogue of Carter's Tested Seeds. It is an invaluable guide book to all who want choice, rare or particularly reliable seeds for Spring sowing.

Carter's Tested Seeds

are not an experiment in Canada, as they have long been grown here and have shown remarkable superiority. Their excellence is due to pedigree, careful selection, cleaning and thorough testing. Get Carter's Tested Pedigree Seeds; they are this season's crop, grown and packed by James Carter & Co. of London, England, and sold in sealed packages.

1913 CATALOGUES ARE NOW READY

One is reserved for you. They are sent free, postage paid. When writing address Department C and mention whether you wish the Farm Catalogue or the Garden Catalogue.

PATTERSON, WYLDE & CO.
 Agents in Canada for James Carter & Co., of
 London, Eng.
 Dept. M 133 King Street East, Toronto, Canada



Make More Money and Reduce Your FEED Bills by using

CALDWELL'S MOLASSES MEAL

Any Stockman or Farmer can do that easily.
 The systematic use of Molasses Meal does not mean extra
 feeding costs.

It operates precisely the other way—It reduces forage bills.

The great feeding value of pure Cane
 Molasses is acknowledged by progressive
 farmers all over the world.
 The problem has been to find a convenient
 form in which to feed it, and—
 Caldwell's Molasses Meal solves that
 problem.

Animals like Molasses Meal.
 It makes other feeding stuffs palatable—
 more digestible.
 It puts spirit and go into horses—
 Keeps cows contented and in excellent
 condition—
 It quickly brings steers, sheep, lambs and
 hogs to maturity
 —their highest market value.



N.B. Remember that you could not
 buy pure Cane Molasses for what
 we sell the finished product. And
 Caldwell's Molasses Meal is not
 pure cane molasses and the only
 meal manufactured from pure Cane
 Molasses exclusively. Clip out
 coupon—mail to us, and we will send
 you full particulars.

The Caldwell Feed Co.
 Limited
 Dundas, Ont.

Please send me booklet and
 full particulars as to cost, etc.
 of Molasses Meal.

Name

Address

Post Office

Province