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FARM AND DAIRY

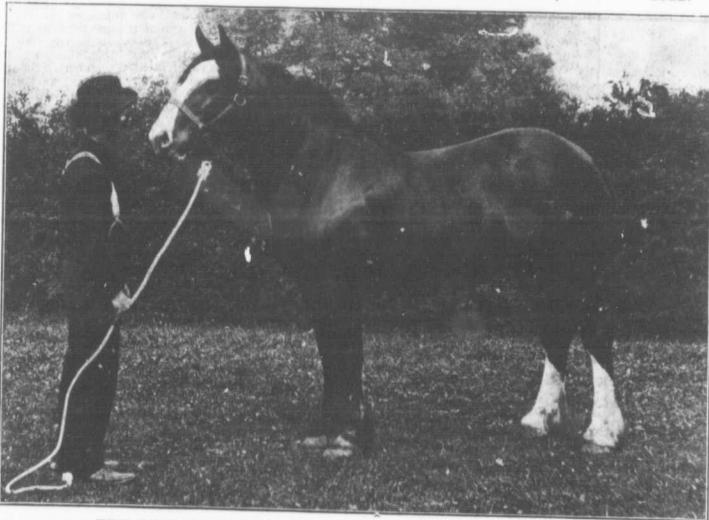
AND

RURAL HOME

PETERBORO, ONT.

JANUARY 19,

1911.

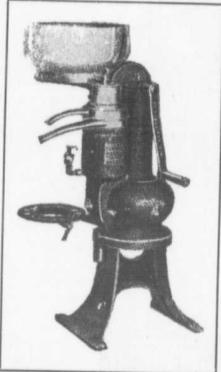


THE TYPE OF BROOD MARE TO PRODUCE MARKET TOPPERS

The market is keenest for horses weighing 1,600 pounds and over. He who is wise and who seeks to breed horses for profit will take advantage of this fact and produce what the market demands. The type, as here illustrated, is the kind the buyers are after. Even poor ones of this class command prices equal to the good ones of lighter breeding. He who has light horses these days finds them a bill of expense and slow of sale. Our illustration shows Lady Rose of Ferndale, a registered Canadian bred Clydesdale mare, owned by Fierheller Bros., Oxford Co., Ont. She is one one the likes of which we need many more. Farmers generally will be well repaid if they breed this sort.

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BEATTY BROS., FERGUS, ONT.

It is desirable to mention the name of this publication when writing to advertisers

Ontario Experimental Union

In the words of the Honorable Sidney Fisher, Minister of Agriculture for the Dominion, who attended its sessions, the Ontario Agricultural and Experimental Union, which met for its thirty-second annual meeting in Guelph last week, January 10-12, Professor C. A. Zavitz has perfected the work of this organization to an extraordinary degree. The Experimental Union and the Guelph College have been a tower of strength to the agriculture of Ontario. These institutions have cost some money. The money has been well spent and it has brought and is still bringing a great return to the agriculture of the province.

The annual meeting of the Union this year was held some weeks later than on former occasions. Previously the meeting has been called early in December at the time of the Guelph Winter Fair. This year it was decided to convene at the time of the Short Courses in stock and seed judging at the College.

Student farmers were given much food for thought by Mr. C. C. James, Deputy Minister of Agriculture for Ontario, who delivered an address at one of the evening sessions. He instanced the fact that financial men, public men, and city men generally are interested in our work; afterwards he enlarged upon the problems now before wide-awake, intelligent farmers. He showed that the day of wheat farming and wheat alone, as we once knew it in Ontario, was past. The day for barley, and barley only, likewise, had gone. Now, we should devote our attention to raising high-class stock, dairying, fruit-growing and poultry.

PAY HIGHER FOR LABOR

Touching upon the labor problem, Mr. James said that the day of cheap labor had gone and it would never come back in our time in this province. Our farmers must adapt themselves to conditions as they find them and prepare to meet a yet further raise in wages for laborers. Those who assert that they cannot afford to pay more for farm labor, make their rating by old standards, whether or not one can afford wages of a certain rate depends upon the results he gets. A farmer should ask himself "How much can I make out of a man's labor?" One farmer, Mr. James said, can afford only \$10 a month, while his neighbor can well afford to pay \$25, \$30, or more. A farmer of skill, ingenuity with his work well systemized, can take high-priced labor and make money out of it.

THE MAN WHO SUCCEEDS

The statement was advanced by Honorable Sidney Fisher that farmers of Ontario to-day who are making the most money are graduates of the College. He pointed out that the man who succeeds is the man who makes use of his brains, and that the most successful man to-day must not use his muscles too much lest he become tired to an extent where he could not exercise his brains to the best advantage. He quoted statistics showing the value of our aggregate crops for the Dominion to be over \$600,000,000 this year. It would be no tribute at all for us to add at least 20 per cent. to these crops, and make the five hundred become six hundred millions. It would require no more capital; rather a little more knowledge and a little more care applied to the work which lies in the hands of the farmers, who, if they would but do as well as they know, would easily accomplish this result. The Minister went into details concerning the work of some of his important departments. Much of his address will be reproduced in Farm and Dairy later, as space permits.

The retiring president, G. S. Henry,

of Orillia, placed the large responsibility, which rests upon students and ex-students of the College, squarely upon them in his presidential address. The College, he said, could only touch the fringe of the farming population. Ex-students were expected to become leaders in their respective communities and they should be instrumental in bringing about a general uplift in agriculture, raising the standards of production, demonstrating the dignity of our calling and generally upholding the status of the farmer, who should be recognized as equal to the best.

The main interest of the meetings centred in the reports of the secretary, Prof. C. A. Zavitz, who gave the results of co-operative experiments in cereals and legumes, fertilizers on farm crops, and experiments with potatoes, sweet corn, field roots, grasses, clovers and alfalfa. Those results will be given in full, as they are available in future issues of Farm and Dairy.

VALUE OF EXPERIMENTS

The Professor, before enlarging upon the results secured, impressed upon his audience how much we in Ontario owe to the thousands of farmers of the province who year after year are carrying on experiments with farm crops. We do not realize either the great value of these experiments to the experimenter himself and the influence they exert on their neighbors. He also paid tribute to the splendid work and the untiring efforts of his assistant, Mr. Squirrel and Messrs. Gray and Whiteside.

The remarkable progress in the work in connection with the Union was shown by reference to the history of the organization. Whereas 25 years ago there was but one line of experiment attempted, this year there were 39 complete experiments and some 12,000 experimenters. One of the main objects of this experimental work in Ontario is to help farmers to help themselves, and to encourage them to do better work than they have been going in the past.

1 LB. INCREASES TO 900 BUSHELS

The Union is of inestimable value to the country at large through its distribution of pure seeds of choice varieties of farm crops. True, this seed grain is sent out in small lots. That, however, does not minimize the value of this work, as may be instanced in the case of Mr. John Elder, a man from Huron County, who was present at the meeting and who, from the one pound of O. A. C. No. 21 Barley, which he secured from the Union, increased the seed to over 900 bushels in three years.

Addreses other than those previously mentioned were made by Prof. S. F. Edwards, who reviewed results of co-operative tests in seed inoculation with legume bacteria; Dr. G. C. Creelman, Prof. R. Harcourt, A. H. McLennan, of the O.A.C.; P. P. Farmer, Toronto; Morely Pettit, Provincial Apiculturist; Prof. S. B. McCredy, who gave a most important report on the extension work with the Public schools, as carried on through the school's division of the Union, Prof. E. J. Zavitz, J. Lockie Wilson, G. A. Putnam and others. Space does not permit of us giving details of their addresses this week.

OFFICERS

The officers elected are: Pres., W. J. Lennox, Newton Robinson; Vice-Pres., Prof. W. A. Goble, Woodstock; Sec'y, J. S. Squirrel; Treas., Prof. A. H. McLennan; Board of Control, Dr. Creelman, R. I. Moorehouse, Cairo; J. H. Hare, Whitby; Nelson Montclair, Stratford; G. B. McCauley, St. Catharines; W. Dawson, O. A. C. Andlers, A. W. Mason and R. R. Graham.

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Threshing Clover with a Grain Separator

J. B. Leavitt, Prince Edward Co., Ont.

The grain separator with which I thresh clover seed is adjusted as follows: I fix a box on the feed board in front of the cylinder so as to close about two-thirds of the cylinder from right to left and close the back of the cylinder from left to right all but 12 inches. I have a slide in the board so as to allow me to close the whole back of the cylinder; this enables me to meet the conditions of the crop that has to be threshed, i.e., if tough I close it somewhat, whereas if it is dry it is left open.

All of the holes in the concave are plugged so as to make them tight, thus the seed has to be freshen from one end of the cylinder to the other.

As to cleaning the seed with this mill, one has to use some judgment. I have placed a small fanning mill in the side of the machine, which enables me to blow all of the dirty and light seed in on the deck. I elevate the seed from the grain spout to the little mill, this mill sitting endways in the machine.

The yields secured from clover threshed with the separator rigged in this way have varied from one-half to six bushels to the load. The machine has given satisfaction.

Note.—Faversham's mention was made of this improvised clover miller, as used by Mr. Leavitt, by Mr. Uncle John Hyatt in the lecture room at the recent Guelph Winter Fair.—Editor.

How Prize Winning Herds Were Fed

The methods of feeding and management of three of the herds that won high places in the Dairy Herd Competition, conducted by the Western Ontario Dairymen's Association, are here given:

"My farm contains but 25 acres, 13 of which is in pasture, two in buildings and orchard, leaving 10 acres to grow fodder crops. We usually have two acres of corn, two acres of mangels, two or three of clover, and the balance in Hungarian grass. Most of the feed for our cows is run through the cutting box, clover, corn, and Hungarian grass being mixed together.

"All of this cut feed that the cows will eat up clean is given in the winter along with a few mangels. Occasionally a feed of long hay is given for a change. I find that Hungarian grass cut and cured at the proper time is one of the best feeds for milk cows.

"When the cows freshen in the spring, they are fed half a gallon of bran morning and evening all summer until mangels are fed again. The cows run on the highway in the daytime, for which privilege we pay \$1.00 a week and in the pasture at night.

"A pure bred sire is used and heifer calves from the best calves are raised. Attention is paid to persistency in flow of milk rather than to a large flow for the first few weeks. The milking is done in the stable all the year round, and care is taken that the cows are milked dry.—George Bourchier, Oxford Co.

"The foundation of my herd consisted of grade Durhams selected for milking qualities. A pure bred Holstein sire was used and his heifer calves form the present herd. About a week before the cows freshen, I start to feed a few mangels, three pints chopped oats, and a little flax seed meal in addition to the rough feed. A little oat chop is fed all summer. When pasture becomes short, sweet corn is fed twice a day. When the corn stalks become too ripe, mangels and a little flax seed meal are given until the factory closes.

"In the six months last season, 5,051 pounds of chop were fed to the cows which is scarcely 2½ pounds a cow per day. All the feed was raised on the farm."—John Van Slyke, Elgin Co.,

"In the winter we feed corn fodder, hay and about two quarts of oat chop a day to our dairy cows. When the cows freshen a small amount of oil cake, bran and oat chop mixed with sugar beets is fed. When the pasture is good, oil cake and bran are fed once a day.

"About the first of July, we start sowing on green peas and oats, followed by green corn and roots. Late in the fall shorts, bran and alfalfa hay twice a day are also given. Our cows are Holstein graders."—Seymour Cuthbert, Oxford Co., Ont.

Remarks by a Successful Shepherd

Donald Innes, Victoria Co., N.B.

A flock of 15 or 20 ewes should be kept on every farm of 100 acres. A flock of this size will clean up a great many weeds on a farm. We



W. J. W. Lennox, B. S. A.

President of the Ontario Agricultural and Experimental Union for 1911.

must not expect them to get all their living off the weeds, however.

The selection of foundation stock is important. When starting out to select a flock the best time to get good ewes is just after the lambs have been weaned. You then can make selection of ewes that have raised lambs. At that time the best breeders and best milkers can be easily determined.

WINTER FEEDING

If the sheep are in good condition when winter sets in, they will be the more easily wintered. I do not want anything better for feed for them than good clover hay and some turnips two or three times a week until after lambing. Then I give them all the turnips they want. To give a feed of well cured pea straw fed once a day is a good practice.

Two or three weeks before lambing the ewes should get a feed of grain once a day—say oats, with a few peas mixed. It would be still better if a little wheat bran could be added. This mixture will ensure a good flow of milk. A good milk flow is the one thing essential for the healthy development of the lambs.

In housing sheep for the winter, it is not desirable to have their quarters too warm. They should never be shut up in a warm house. My sheep will be out of doors in the coldest nights if it is not blustery. Give them the chance to stay indoors or go out as they see fit. They are the best judges.

Some people have the belief that sheep do not need water. That is a mistake. They will live without it, but they will do better if they are given the chance to get water whenever they want it.

Don't forget to renew your subscription.

Feed and Care of Draught Horses

R. Smith, Ontario Co., Ont.

Regularity in work and regularity in feed mean a long life of usefulness to the draught horse. Nothing puts a horse out of condition quicker than irregularity in feeding. In a good stable, the groom feeds by the clock. Horses always become restless about meal time and do not do well if kept waiting. They suffer most frequently from irregular feeding on Sunday. Most of us like to sleep in a little later on Sunday morning and do the chores earlier Sunday even^g. The horse however, does not appreciate the difference between Sunday and Monday, and if at all possible, regular feeding hours should be adhered to seven days in the week. If we are determined to crowd the meals close together on Sunday, it would be better to cut out the noon meal altogether.

Bran, oats and hay are our standbys in feeding draught horses. Bran in particular is indispensable for idle horses, colts, or horses which are being fitted for exhibition. In either of these three cases, I prefer to mix crushed oats and bran, and dampen the mixture before feeding. Crushed oats are preferred to whole. Baled oats are very good for colts.

FEED SALT EACH DAY

The feeding of salt to horses is a point on which many otherwise good horsemen fall down. Commercial stock feeds sometimes give results which are out of all proportion to the nutrients contained therein. Had the horseman been feeding a small handful of salt each day to his horses, the stock food would not have given such phenomenal results. Salt is the cheapest stock feed available. I prefer to give a small handful of salt each evening on the grain feed. I know of no better way of producing cribrers than by leaving rock salt constantly in the mangers.

The heaviest feed should be given at night: the lightest feed at noon. Never give more at one feeding time than the horse will eat up readily. The average farm hand will cram the rack with hay and the horse always has it before it. This is poor policy. The horse's stomach must have a rest or it will wear out like everything else that is kept constantly at work.

TO WATER HORSES CHEAPLY

Idle horses can be carried over the winter very cheaply if they have regular exercise and regular feeding on somewhat bulky food. A mixture of timothy and clover hay with bran and turnips makes an excellent ration for idle horses. Carrots are preferred by horses to any other root and we have fed them with good results. Some horsemen, however, remark that they have resulted in "wind on the stomach" and it may be just as safe to avoid their use. We have fed ensilage with good results in combination with oat straw or hay, but the quantity was limited. Too much ensilage will cause bloat and colic.

Horses should be watered three times a day at least. Even if occasionally they will not drink they should nevertheless be given an opportunity regularly. When watered regularly horses are not apt at any time to take enough to hurt themselves. When over heated, however, it is well to see that they get water in limited quantities as too much will cause founder.

In erecting an implement shed, it is advisable to locate it at some distance from the other buildings to allay the danger from fire, and to have this location at the nearest approach to the fields so that the implements can be hauled with the greatest convenience. The roof should be high enough to admit the highest machine on the farm, and floor space will be determined by the number of tools to be housed.—Mac. C. Cutting, St. Paul, Minn.

Cooperative Forestry in Ontario*

E. J. Zavitz, M.S.F., Guelph, Ont.

The Forestry Department of Ontario distributed or planted about 400,000 trees. About 200,000 were sent out to private planters, and some 200,000 were planted at the Norfolk Forest Station.

The material sent out to cooperative planters consisted largely of Scotch Pine, White Ash, White Elm, Sugar Maple, Soft Maple, Catalpa and Black Locust. A number of planters received Walnuts, Butternuts and Hickory nuts to be used in planting in woodlots or plantations. Under the direction of the Schools' Section of the Experimental Union there was sent out 60 collections of forest tree seedlings.

PLANTATIONS IN 40 COUNTIES

This department has during the last five years sent out to cooperative planters and planted on government land nearly two million forest trees. We have plantations started in about 40 counties although most of the planting has been done in the southwestern portion of the Province.

Eighty per cent. to 90 per cent. of trees are living, which is considered a good percentage in forest planting. Plantations in light or thin soils such as we are dealing with in Ontario give very slow results in tree growth the first few years. First year after planting the height growth averages three to four inches. Fourth year after planting a number of our plantations are growing from 12 to 24 inches a year. As soon as the trees are large enough to shade the soil, growth becomes more rapid.

TREES FOR DISTRIBUTION

For the coming season this department will have for distribution, plants of the following kinds: White Pine, Scotch Pine, White Cedar; Black Walnut, Butternut, Hickory, Sweet Chestnut, Red Oak, Maple, White Ash, Elm and Black Locust. We have this year a larger number of hardwoods and nut trees which should prove valuable to those who desire to restock thin woodlots.

In waste land planting it is not always possible to use the trees we might wish. On poor soils some of the evergreens give the best results and are, in fact, about the only kinds which it is possible to grow. The problem

in old Ontario is not only to reforest the non-agricultural soils but to endeavor to plant hardwoods and nut trees wherever possible. The better classes of hardwoods as Ash, Oak and Elm, are going to become very scarce. At present we depend largely upon importations from the United States. It is absolutely certain that this source will soon be closed as we are told by good authorities that the end of the virgin hardwoods of United States is in sight. It will simply mean that hardwoods will be out of the question for the ordinary citizen, and that we will have to be satisfied with inferior woods.

NORFOLK FOREST STATION

One of the chief branches of work claiming the attention of this department is the Forest Station in Norfolk county. There are 1,300 acres of land in this station. The two main features of the

*Report on cooperative forestry work as read before the annual meeting of the Ontario Agricultural and Experimental Union at Guelph, last week.

station are experiments in the reclamation of waste land by forest planting and forest nursery work to produce material for local planting, as well as supplying forest seedlings for general distribution throughout the province.

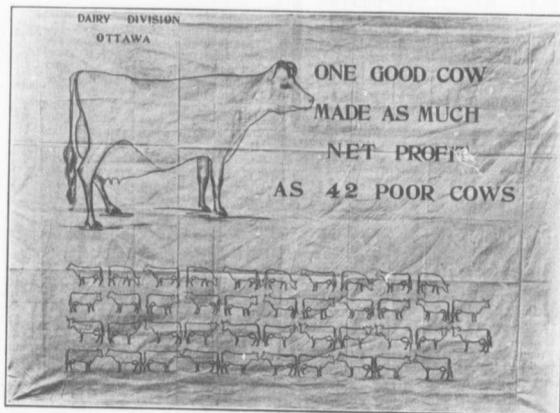
In the forest nursery there is at present about 800,000 forest plants in nursery lines and about 1,500,000 seedlings in seed-beds.

More Cows and Better Cows Wanted

C. F. Whitley, in charge of Records, Ottawa

The live issue of the day, the legacy of this generation of dairymen to the next, is cow testing. It will help to plug up the practical leaks, it is no makeshift arrangement, no device of varnish or putty to hide deficiencies, but a practical every day help. The scales do not make more milk any more than a thermometer raises the temperature, they simply indicate what action to take to better cows. If we need to obtain more milk per acre, and our production at present is not consistent with the best dairy farming, we might well aim at at least 50 profitable cows per 100 acres, at least 8,000 pounds of five per cent. milk in creamery sections, some men are doing this, and then improve on that. Aim high or you never attain.

Many good cows of excellent premise exist in

**Which Do You Prefer? Which Have You? Do You Know?**

This illustration is a reproduction of a graphic description used most effectively by Mr. C. F. Whitley, in his address on cow testing before the recent Ontario Dairymen's Association Conventions. Every man who owns a cow should, if he has not already done so, read Mr. Whitley's address, as featured on page 5 of Farm and Dairy last week.

Canada. Their true value is just commencing to be revealed as a result of cow testing. At what figure they may next change hands depends entirely on the type of man in whose possession they are now. There is no reason why history should not repeat itself and a value of \$10,000 be placed upon some cows in the Dominion. Bull calves from such cows are worth \$5,000; don't sell them for real for \$8, as one unfortunate man did, because he never took time to ascertain what the dam could do.

Three of the present champion cows of the world were sold within the last year or two for ordinary prices of ordinary cows, simply because their owners then had never had them tested, had never weighed and sampled. Possibly you have a \$10,000 cow in your herd, and don't know it. Do you know your cows? Have you found out what each can do? Could you by any chance, unawares, sell a cow for \$80 with \$10,000 possibilities in her?

The Question of Tuberculosis

"Many people will tell you that the application of the tuberculosis test to dairy cows will poison them," said Prof. Geo. E. Day, of the Guelph Agricultural College, during a discussion that followed his address on Tuberculosis delivered at the recent convention at Perth of the Eastern Ontario Dairymen's Association. "Don't believe it," continued Professor Day. "I have never even heard of such a thing happening."

"A cow with a diseased udder is a dangerous animal to keep. I would not want the members of my family to use her milk. If her milk was fed to calves and pigs, it would quickly transmit the disease."

GOVERNMENT COMPENSATION

"I do not think that the average farmer can afford to apply the test to all his cows as we do it at the College without his receiving at least some government assistance. To do so might ruin some men. There are others who might be affected by it but very little. In Denmark animals that are infected are slaughtered. A government inspector then decides whether or not their meat can be sold. Farmers receive some compensation for infected animals."

"It is possible by separating infected animals from healthy stock to keep both and to raise healthy animals from the infected ones without

danger. Care, however, must be taken when moving from one herd to the other. When feeding, for instance, it would be advisable to feed the healthy animals first and then before feeding the infected stock to put on a loose smock and large pair of rubbers which could be taken off when feeding was finished. Sometimes infected animals live for years after reacting.

WOULD YOU REACTING BULL

"I would not hesitate to use a reacting bull, but he would have to be kept separate from the rest of the herd. His manure should not be allowed to become mixed with the manure from the rest of the herd in the barn yard."

"Any ordinary man should be capable of applying the test. I am not a veterinarian nor is my assistant Professor Wade. We both use the needle, but we are probably more careful about sterilizing the needle and cleansing the wound than is the average

veterinarian. If after the test has been applied, the temperature of an animal goes to 104, even if it was as high as 103 the day before, the animal is considered a reactor. The old rule was that when the maximum temperature after the test was two degrees higher than the maximum temperature shortly before the test the animal was considered to have reacted."

I have had good results from plowing land for corn in August and cultivating to kill weeds through the fall. Next spring the land is surface worked. Manure is hauled in the winter and left in piles not large enough to heat. At one time when plowed just before seeding to corn, I had to go over the entire nine acres with a hoe and cut out the weeds in the drill. This was a pretty big proposition, and I prefer the summer plowing and the fall cultivation.—G. A. Brethen, Peterboro Co., Ont.

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FARM MANAGEMENT

To Plow Alfalfa Sod Easily

Is there any method of managing an alfalfa field whereby the plowing will be made easier?—J. F. Victoria Co., Ont.

If the alfalfa field is properly managed it is not more difficult to plow than is red clover sod. Pasture the field bare in the fall and let the stock run on it in the winter when the land is bare. Under such close pasturing the crowns will be cut off and every dead crown means a dead plant. By May 10th or 15th, the roots of the alfalfa will be dead to a depth of four or five inches and the sod can then be plowed without great difficulty.—Hy. Glendinning, Ontario Co., Ont.

Crops for Muck Soil

What crop should be put on much land? I have about three acres plowed this fall. It will be dry enough to go on it in June if the spring is not too wet.—H. S. Millet is grown successfully on such land and as it is much relished by dairy cattle, either as green feed,

or as hay, it would likely prove a profitable crop on a dairy farm. It is sown at the rate of 35 or 40 lbs. an acre, in June or the early part of July.

It is also possible to make good use of such land by seeding it down to permanent meadow, preferably with a mixture of grasses, of which red top, because of its hardness should form a part. Equal weights of orchard grass, meadow fescue, timothy and red top, sown at the rate of about 25 lbs. an acre is recommended. Thorough underdrainage would make this land suitable for growing nearly all farm crops.—J. H. Grisdale, Dominion Agriculturist.

Concrete Silo Resists Fire

The illustrations of the concrete silo as published on page four of Farm and Dairy January 5th, were taken at the Shawbridge, Que. This silo, as was stated, had just been completed when a fire wiped out all of the other farm buildings and left the concrete silo.

Careful examination of this silo reveals the fact that it is so good as when built notwithstanding the fact that it passed through a most severe test. Spectators who witnessed the fire say that the concrete walls were heated to such a degree that after the fire was extinguished the silo stood aglow against the dense background of the night and that it was visible for miles around the country.

The silo is noted from the smaller illustration referred to stood within a few feet of what were very large buildings. These buildings furnished an abundance of excellent fuel and in addition to this the scaffolding that has been in use in building the silo was still in position at the time of the fire.

Some slight fire cracks appear on the silo now. These are only on the surface. In a few places the heat has peeled off the surface concrete to a depth of from one-quarter to one-half inch, but in no case has the damage extended beyond that. Experts aver that the silo has not been in the least impaired nor has it become in the slightest degree more porous. Thus in a manner seldom equalled has the value of concrete, as a fire-resisting medium, been demonstrated.

Ice Cheaply Stored

Please give me a plan for a cheap ice house and directions for storing the ice.—H. S., Pontiac Co., Que.

A store house that will house ice satisfactorily does not necessarily call for an extensive outlay of cash. Any kind of a shed or cheaply constructed building if properly filled and the ice carefully packed in sawdust answers every purpose. The main thing in putting up ice is to pack the cakes solidly, not allowing large cracks and crevices. A space on all sides of 12 to 18 inches should be left for sawdust. Cover the whole mass of ice a couple of feet thick.

Some system of drainage underneath to carry off the water created by melting must be provided. A very cheap method of providing this drainage is to put in a floor of round poles. The water will readily find its way out under these poles. Ventilation, which can be provided by opening windows at opposite ends of the building, is necessary to prevent warm air from standing over the ice causing it to melt. As fast as the blocks are removed the saw dust should be replaced and thoroughly tramped down.

Flooding the layers of blocks of ice with water and allowing it to freeze in the crevices is also a practice but does not result in much benefit. Solid packing of sawdust around the sides and over the top and bottom, and free circulation of air overhead are sufficient precautions to keep ice

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions of interest. All questions will receive prompt answers.

Cotton Seed Meal for Dairy Cows

In the Dec. 1st issue of Farm and Dairy the feeding of foods high in protein, such as cotton seed meal, was discussed. At one time several farmers in this neighborhood clubbed together and got a carload of this feed for our cows, but found that it was decidedly injurious. How should it be fed to avoid injurious effects? Can it be fed with safety to other kinds of farm animals? How is cotton seed meal made?—W. K., Oxford Co., Ont.

Cotton seed meal testing 37.2 per cent. digestible protein and 12.2 per cent. fat is a heavy food and must be fed in limited quantities and in combination with other meals to get best results. The mistake most commonly made in feeding this meal is to feed too much of it. The combination of bran and cotton seed is the ideal ration; at least two or three pounds of bran to one pound of cotton seed. If the milk from the cow fed cotton seed is to be made into butter, the cotton seed should be fed in limited quantities as the butter resulting from heavy feeding of cotton seed has a tallowy consistency, poor flavor and has the appearance of being over-ripened. In reasonable amounts and in proper combination, however, cotton seed is one of the best feeds available for dairy cows.

On no account should cotton seed meal be fed to either calves or pigs. Calves getting as little as six ounces of cotton seed per day will quickly sicken and die. In an experiment carried on at the Texas Experimental station it was found that the mortality among pigs receiving cotton seed was 87 per cent. Good results have been reported from the feeding of one to five pounds of cotton seed per day to heavy horses when working hard. As a general rule, however, cotton seed must be regarded as a feed for mature cattle only.

Cotton seed meal is the residue left when the oil has been extracted from the cotton seed. At the oil mills, the envelope of the cotton seed is taken off and the oily kernels are crushed, heated and placed between clothes or sacks and then subjected to hydraulic pressure to remove the oil. The residue is a yellowish board-like cake about one inch thick, one foot wide and two feet in length. This cake is reduced to meal by grinding and in that form we receive it.

The Proper Care of a Boar

During the breeding season as well as at all other times, the boar should be kept in a separate pen and as far removed from the sows as possible. If kept near the sows he will do a lot of unnecessary fretting that will not tend to keep him in a shrilly contented mood. At this season his feed should not only be corn and water, but a combination of protein and fats that will tend to build up muscle and red blood.

When the sow comes in heat, she should be brought to the loar, given one satisfactory service and then removed. This may seem to be a lot of work to people who have been used to more careless methods, but if the breeding operations on the farm are not worth doing properly, they are not worth doing at all. It is a safe assertion that there are more cases of non-breeding due to lack of intelligence on the part of the owner than from any natural lack of fecundity on the part of the sow.

No man who cares anything for his

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A first-class evaporator that will make GOOD CLEAR—the kind you like—syrup, with a VERY SMALL quantity of fuel. Price SO LOW the poorest man can buy. Every one GUARANTEES it and as representative, **FLIGHT BACK** at our expense. Sold direct to the farmer. Turns that sugar bush of yours into a paying business. Don't take our word for it. Send for our new pamphlet. It tells what the fellow who has used it thinks.

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is so thoroughly locked together, unit by unit, that the hardest windstorm cannot budge; the heaviest rainstorm cannot penetrate; the severest lightning cannot harm. And that means Preston Shingles.

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boar or is at all interested in the success of his swine-breeding operations will turn the boar out with the sows, and this is especially true in the case of a young hog. There used to be an opinion among hog raisers that more than one service was necessary for the production of a good litter, but this has long since been proven a fallacy. One good service is sufficient and more than that is simply an unnecessary strain upon the male.

Pointers on Feeding Cattle.

F. D. Shaver, Lambton Co., Ont.
During the first few weeks of a calf's life, 10 lbs. of milk will produce one lb. of gain. A calf will sometimes gain in weight as rapidly as a fattening ox 10 times its weight. The calf for the first six months of its life will make more rapid gains for the amount of food consumed

than at any future time. The feeder who can produce an animal of 1,000 lbs. at one year old is considerably more money in pocket than the man who takes two years.

The feed for the young animal must be rich in proteids and ash for the building up of muscle and bone. If the breeder wishes to produce an animal economically and to perfection he must see that it does not receive a set back. A good plan is never to allow it to lose the calf fat. When the food of the calf is changed from the whole milk of the mother to skimmed milk, fat equivalent to that in the whole milk must be added to the ration by means of meal, which should be increased from week to week and month to month as the animal body requires.

As the animal grows and takes more exercise, a larger proportion of the food is applied to the production

of heat and mechanical work. The proportion of nitrogenous matter in the food may therefore gradually be diminished, carbohydrates and fat being quite as fit as albuminoids for producing heat and work and are considerably cheaper. Under natural conditions this diminution in the nitrogenous character of the diet soon takes place, the animal daily taking more and more grass in addition to its mother's milk.

When the beef animal is placed in the stall to be finished his ration must be rich in carbohydrates and fat and gradually increased in richness as he becomes ready for market.

FOR THE DAIRY COW

The dairy cow on the other hand requires food of a different nature. The average percentage composition of cow's milk is water, 87.0 per cent.; albuminoids, 3.6; fat, 3.9; carbohydrates (sugar, etc.), 4.8; and

ash, .7. From these figures it can be easily understood that a cow to do herself justice must have a ration containing all these constituents. If the ration is rich in fat and starch and low in proteids she must make up the deficiency in proteid matter from her own body and she too often looks as if her body supplied the proteid in the milk.

If the beef and dairy cattle are to keep in the same stable and the meal chop box used for both and the same ration for one is unsuited for the other, who stands the loss? Yet in the majority of cases they receive practically the same, except that the measure is heaped up for the fattening animal and the dairy cow receives well, half or two-thirds full will do her!

Have you forgotten to renew your subscription to Farm and Dairy?



Free to Stock and Poultry Raisers

We will send, absolutely free, for the asking, postpaid, one of our large thirty-two-page booklets on the common diseases of stock and poultry. Tells you how to feed all kinds of heavy and light horses, colts and mares, milch cows, calves and fattening steers, also how to keep and feed poultry so that they will lay just as well in winter as in summer. No farmer should be without it.



At a cost of only two-thirds of a cent a day per Animal, Royal Purple Stock Specific makes each Animal worth 25 per cent. more.

You never heard of any other Specific, or "Stock Food," doing likewise.

Royal Purple will permanently cure the Bots, Colic, Worms, Skin Diseases and Debility, and restore run-down Animals to plumpness and vigor.

It will increase the milk-yield three to five pounds per cow a day inside of from two to three weeks. It makes the milk richer than ever before.

MR. ANDREW WEGRICH, of Wainflett, Ont., says: "This is to certify that I have tried your Royal Purple Stock Specific for two weeks, on one cow. On the 16th I weighed her milk as 17 pounds. I noticed a change after 5 or 6 days, as there was an extra weight of milk. On the 20th, I carefully weighed the milk, and she gave 22 pounds. I am giving an order for 5 boxes, as I consider it the best I have ever used."

"Stock Food" will not do this. Because "Stock Food" is nothing more or less than a mixture of the very things which you, yourself, grow in your own field.

It is not more food your Animals need. They must have something to help their bodies get all the nourishment from the food they are getting. So that they will fatten, and stay fat, all the year round. They need something to prevent disease, to cure disease, and to keep them in the best of health, all the time.

Not a Stock Food

Royal Purple is not a "Stock Food," nor a "medicine." It is a Conditioner.

It does not contain Grain, nor farm products. Nor does it contain "Dum," or any other injurious ingredient. Royal Purple does not merely temporarily fatten or inspire the Animal. It fattens and strengthens it, permanently.

No other Specific known adds flesh so quickly as Royal Purple. It makes 6-weeks-old Calves as large as ordinary-fed Calves are at 10 weeks.

Royal Purple makes naturally-thin Animals fat

and heavy. And it builds up the health and restores the former plumpness and vigor of run-down stock, in little or no time.

The very best time to use this Conditioner is NOW. It digests the hard food properly and prevents the animals getting indigestion or losing flesh.

50 per cent. Cheaper

One 50-cent Package of Royal Purple will last one Animal 70 days. This figure a little over two-thirds of a cent per day.

Most "Stock Foods" in 50-cent Packages last but 50 days, and are given three times a day.

But Royal Purple Specific is given only once a day, and lasts 50 per cent. longer. (At \$1.50 Fall, containing four times the amount of the 50-cent Package, lasts 280 days.)

So, you see, it is only necessary to give Royal Purple Specific once each day.

Just think of making each Animal worth 25 per cent. over its cost! What will that mean to you, Mr. Stock Owner!

Royal Purple

STOCK AND POULTRY SPECIFICS

Royal Purple creates an appetite for food, and helps nature to digest and turn it into flesh and muscle.

As a Hog fattener, Royal Purple has no equal.

Never Off Feed

Dan McEwen, the horseman, says: "I have used Royal Purple Stock Specific persistently in feeding 'The Pal,' a 2,024, largest winner of any 'pacer' on Grand Circuit in 1908 and 1909, and 'Henry Winters,' 2,104, brother of 'Allen Winters,' winner of \$36,000 in trotting stakes in 1908.

"These horses have never been off their feed since I started using Royal Purple Specific. I will always have it in my stables. Your Cough Powder works like magic."

For Poultry

Royal Purple Poultry Specific is our other Specific. It is for Poultry—not for stock.

It makes the Hens lay Eggs in Winter as well as in the Summer.

MRS. WM. BURNHAM, Sanford, Ont., says: "Dear Sirs,—This is to certify that I have used two boxes of your Poultry Specific for my hens. They laid so well while feeding it to them, I wondered if you would mind sending me word how or where I could get some this winter. I bought it from your agent last winter. I had 25 hens, and some days I got two dozen eggs a day in February and March, while feeding them the Specific."

Royal Purple Poultry Specific prevents Fowls losing flesh at moulting time, and permanently cures every poultry disease. It makes their plumage bright and keeps it always in prime condition.

It makes your Poultry worth more than they could ever be without it.

Yet one 50-cent Package will last 25 Hens 70 days. Or a \$1.50 Fall will do 25 Hens 280 days. This is four times more material at only three times the cost.

Make This Test

Every ounce of Royal Purple Stock and Poultry Specific is guaranteed.

To prove that Royal Purple has no equal, we want you to make this test:

Feed Royal Purple to any one of your best hens for four weeks. And if you do not find any other preparation to equal any animal in the same condition.

If Royal Purple does not prove to you, by actual results, that it is the best you ever used, we'll return your money.

And we'll ask no questions—make no excuses. You will be the judge—not us.

This is an honest test, isn't it? We ask you to make it because we know that Royal Purple is the best Conditioner on the market.

If you are not satisfied, after testing it, you don't lose anything, do you?

Centralia, Ont., Feb. 7, '10.
The W. A. Jenkins Mfg. Co., London, Ont.

Gentlemen,—We have been using Royal Poultry and Stock Specific for the last three weeks, and must say that results are remarkable. Am feeding the Stock Specific to two milking cows, and they have increased 30 per cent. in their milk. The Poultry results are even more marked than this. We have about 50 hens, laying age. When we commenced feeding, we were getting five and six eggs a day, and in the last five days the same flock of hens laid 50 eggs, almost an average of 21 each day, and those five days have been the coldest this winter.

You can see results plainly in two or three days after the use of "Royal Purple," and the poultry have the same hustle and appearance now as in the summer time. With cows and poultry, am using exactly the same feed and care as before starting to feed "Royal Purple."

When farmers and stockmen get acquainted with Royal Purple, it will have a greater demand than all other tonics and stock foods on the market combined.

Yours truly, ANDREW HICKS.

Aug. 28, 1910.
W. A. Jenkins Mfg. Co., London, Ont.

Gentlemen,—Last Fall we had in our stables a young mare belonging to Miss Clouston, of Montreal. We could not feed her any bran on account of causing her to "sour," consequently causing her to become weak and thin. We commenced using your Royal Purple Stock Specific, and the results were wonderful. After using it three weeks, we found we could feed the animal bran or any other soft feed without scouring her, and she actually took on in this time twenty-five pounds of flesh. We working her at the same time throughout the winter. I can heartily recommend your Stock Specific.

TOM SMITH,
Trainer for the Hon. Adam Beck.

We also manufacture:
Royal Purple Lice Killer..... 25c.
Royal Purple Gall Cure..... 25c.
Royal Purple Sweet Liniment..... 50c.
Royal Purple Cough Cure..... 50c.
Our Cough Cure will cure any ordinary cough in four days, and will break up and cure distemper in ten to twelve days. If your dealer cannot supply you with our Royal Purple Brands, we will supply you upon receipt of \$1.50 a fall, prepaid, for either poultry or stock, or if you want, Liniment, Gall Cure or Cough Powder, we will send it by mail, postpaid, upon receipt of price.

SEED OATS FOR SALE

Having had such good success in the past, I have again decided to offer direct to the farmers of Canada, in quantities to suit purchasers, at reasonable prices, Improved Am. Banner, Regenerated Banner and Dew Drop. These oats have all been grown and handled by myself, are pure and clean, and a splendid sample. Further particulars, samples and prices, on application.

A. FORSTER

MARKHAM, P. O., - ONT.

O. A. C. No. 21 BARLEY

After four years of experience in growing O.A.C. No. 21 Barley, I can more heartily than ever recommend it to brother farmers as the best and most valuable cereal crop they can grow. Reliable, home-grown O. A.C. No. 21 barley, free from all noxious weed seed impurities, \$1 a bush. Ten bushels at \$6c. To Farmers' Clubs and institutions in quantities of 25 bushels and upwards, \$5c a bush. Bags extra. Order early; my supply of this great barley will soon be gone at these low prices.

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160 acres of land convenient to Railways in Northern Ontario's great Clay Belt for each settler.

The soil is rich and productive and covered with valuable timber.

For full information as to terms of sale and homestead regulations, and for special colonization rates to settlers, write to:

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Director of Colonization,
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HON. JAMES S. DUFF,

Minister of Agriculture,
Toronto, Ontario.

HORTICULTURE

Value of a National Show

Editor, Farm and Dairy.—Ontario should accept the opportunity to hold a National Apple Show next fall at Toronto. I doubt if there will be found a large apple grower who would oppose the proposal.

For several years we have been using the apple box for marketing our crop in the Old Country. This year we have found a remunerative market at home for our boxed apples. One of the developments brought about by our short crop is the placing before Ontario consumers of our boxed apples. Our discovery has been that there is a demand from Ontario consumers for high quality apples. Our local markets have heretofore been supplied largely with low grade fruit, the best being exported. If our short crop will make our Ontario consumers better acquainted with our finer apples we apple growers need never regret it.

INTRODUCE OUR BEST FRUIT

The point I wish to make is that a National Apple Show at Toronto will help to introduce our high quality apples to Canadians. We have neglected to cultivate the home market as we should. We have wrapped in tissue paper and tied in boxes our choicest apples and been pleased when they sold in the Old Country for from six to 10 shillings a box. This year they are selling here for that much. I believe the home markets have been ready to pay prices fully equal to foreign returns had

they been offered a grade of fruit equally fine.

This season we had U. S. boxed apples offered on our markets. We have seen apples inferior to our Ontario apples selling for more money to Ontario consumers than the home product, and mainly because offered attractively. We apple growers have neglected to cultivate our home markets with high grade apples and the demand is being met by foreign oranges and apples, in which fancy wrappings and packages figure largely.

THE BOX IS THE PACKAGE

There is no denying the fact that the box is the only package in which to offer a fancy apple to the consumer. Canadian as well as foreign consumers like an apple clean and

ers to produce a cleaner apple and it would also educate our consumers to appreciate our fruit.—J. A. Webster, Elgin Co., Ont.

Fruit Men Discuss Tariff

A discussion of reciprocity with the United States in fruit occupied most of the time at the annual meeting of the executive of the Ontario Fruit Growers Association held in Toronto, January 11 and 12. Opinion as to the benefits which fruit men would derive from reciprocity with our southern neighbor was divided. The apple men who now face a duty of 75 cents a barrel on such fruit as they ship to the States and are only protected by a duty of 40 cents a barrel were unanimously in favor of a reciprocal



Remarkable Returns Secured from Old Time Neglected Orchards

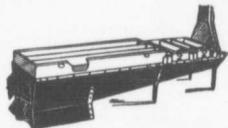
The first class apples in this exhibit at the Ontario Horticultural Exhibition last fall were grown in what were previous to the spring of 1910, the worst of neglected orchards. The work of one season, which consisted of pruning, scraping the trees and cultivating the soil, gave splendid results and returned handsome profits over and above anything ever secured from these orchards before. Hundreds of farmers will be encouraged by these results to properly care for and spray their orchards during 1911.

without bruise, and many are willing to pay for it. The box assisted by paper wrappings can carry such an apple.

Apple growers in Ontario need to wake up to the fact that we can grow as fine apples as can be grown in any country in the world. Our Canadian consumers need to be wakened up to the same fact. The apple should be largely filling the place now filled by oranges, and our governments cannot do anything that would assist the apple industry more than to further a National Apple Show for Toronto next fall. Two things would be accomplished by such a show. It would educate our grow-

lower duty or complete free trade. The peach men, however, were content to leave the tariff as it is. Canadian peaches going into the States are taxed only one half cent a pound while the Canadian tariff is one cent a pound. The grape growers were willing that the duty should be reduced from two cents to one cent a pound providing that their fruit was allowed to enter the States at the same rate. On the second day of the convention, a committee was appointed to make known to the Government at Ottawa, the views of the fruit men on the question of the tariff. W. H. Bunting and R. Thompson of St. Catharines will represent

Maple Syrup Makers Equip Your Maple Grove Early



"CHAMPION" EVAPORATOR

If you will bear in mind that we make 22 different sizes of Evaporators both right and left hand, and that while we can ship promptly now in all sizes, we may not have on hand at the latter part of the season the particular size you require, and would therefore have to hold order till we could make up the size ordered. We have from 25 to 100,000 customers using the "CHAMPION" Evaporator. We would like to add your name to our list if you are anticipating installing one out for this spring's use. Don't put it off. Write us for our latest catalogue and prices. February and March are our busiest months. We prefer to serve you now.

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"Ideal" Fence has features that shrewd buyers appreciate

That's why our Agents are so successful

Taking orders for "IDEAL" fence is far easier than you may think. The "IDEAL" has features that shrewd buyers appreciate. The railways buy "IDEAL" because of its weight and quality, because of the gripping tenacity of the lock on the

"IDEAL" WOVEN WIRE FENCE

It is undoubtedly the strongest fence lock in existence. The farmers buy "IDEAL" for the same reasons as do the railways. "IDEAL" fence is easiest to sell. That is why our agents are so successful.

The McGregor-Banwell Fence Co.

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Don't you think it would be wise to write us for complete particulars in regard to becoming the "IDEAL" fence agent in your locality? Do so to-day. If you wait until to-morrow you give your neighbor a chance to get in ahead of you.



decided that a national apple show could not be held in Ontario until Ontario growers are able to compete with the men of the Pacific slope in box packing which art the western growers have down to a fine science. The matter of express rates was also discussed.

Instruction in Box Packing

An expert box packer from Hood River, Oregon, has been secured by the Horticultural Department at the Ontario Agricultural College to give instruction in box packing for two weeks at the College during the time of the Short Course in Horticulture. The trend in the packing of Fancy and No. 1 apples in Ontario is all in the direction of the box in preference to the barrel package. All that Ontario fruit men need to induce them to put up more of their fruit in this attractive package is skilled instruction in the art.

Two courses of one week each will be run concurrently, commencing January 24th. The number of students will be limited. The course will be run with a little salt. The fowls need salt as much as human beings do. The old theory that salt is dangerous to use in poultry food has long since been exploded.

"Counting Chickens Before they are Hatched" at the I. C. S. Experimental Farms



The Kind of Poultry Raising That Pays

You may know something about poultry-raising, but know something about the profitable science of it. You must learn the profitable science of it. You must learn the profitable science of it. You must learn the profitable science of it.

This is the kind of instruction given by the International Correspondence Schools, which turns failure into success and ordinary success into a money-making victory.

Every phase of practical poultry raising is completely covered in the I. C. S. Course. For example:

How to select most profitable breeds; feeding; marketing eggs and poultry for profit; natural and artificial brooding; natural and artificial incubation; laying hens; combination plant; poultry appliances; enemies of poultry; poultry houses and equipment; turkeys; water fowls, squabs, etc.

To make this course of instruction most practical and complete, the I. C. S. is associated with the largest and most successful poultry farm in the world—Kaneosauke Poultry Farm where you can see every variety of fowl made for the benefit of those taking the I. C. S. Course.

The I. C. S. Poultry Course answers every question you may have in the time and money you would mind many times. For full particulars, write at once. The answer is here. Now is the time to begin.

INTERNATIONAL CORRESPONDENCE SCHOOLS, Box 7702D Scarboro, Pa.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

PURE BRED FOWLS GIVEN AWAY FREE in return for new yearly subscriptions to Farm and Dairy. A club of four new subscribers will bring you a pair of pure bred standard fowls. Write to Circulation Manager, Farm and Dairy, Peterboro, Ont.

FEATHERS WANTED—We buy Geese, Duck, Chicken and Turkey feathers at highest prices paid. Write for price list. The Imperial Waste and Metal Co., Dept. F.D., Queen Street, Montreal.

dents in each course is limited to 30. Persons desiring to take advantage of this opportunity to become expert in box packing should apply immediately to Prof. J. W. Crow. Each application should be accompanied by a fee of \$2.00.

POULTRY YARD

Pointers for Beginners

Mrs. John H. Rosebrough, Brant Co., Ont.

The safest way for those to commence who wish to make a success of poultry raising is to start with a few fowls and learn the business thoroughly. Mistakes are certain to be made before success in any large measure is attained. As soon as the flock is found to be a paying investment, increase the number of fowls.

The time of year that one starts into poultry is not however important. The fall of the year, however, is a good time to start. Then fowls can be purchased for less money than at any other season. It is advisable that the fowls be moved to their new quarters before they begin to lay. If the beginner has had experience in poultry keeping it will be all right to purchase eggs and start in this way. Otherwise they should begin with the fowls, and gain some knowledge of caring for poultry before attempting to raise chickens.

Now comes the selection of a breed. For convenience, chickens may be classified as egg breeds, meat breeds, general purpose breeds and fancy or ornamental breeds.

EGG BREEDS

The egg breeds include the small or medium sized fowls. They are very active, quick to mature, producers of white-shelled eggs, usually non-sitters, and rather poor mothers. The various varieties of Leghorns and Minorcas are good representatives of this class. They usually begin to lay at the age of four and one-half months.

The meat breeds include the largest fowls; Brahmas, Cochins, and Langshans.

The general purpose breeds consist of fowls of fair size. They will usually produce a good quantity of brown shelled eggs. They are especially adapted to the person wishing a supply of both eggs and meat. As one has frequently to sell surplus stock in the form of dressed poultry the meat qualities as well as egg production should be considered in selecting a breed. General purpose fowls endure the cold weather well. They are Plymouth Rocks, Wyandottes, Orpingtons, and Rhode Island Reds.

The ornamental breeds are not so well adapted for farm purposes.

The Peterboro Poultry Show

With almost 1,200 entries, all classes well filled and not a cull in the bunch, the poultry show held under the auspices of the Peterboro Poultry Club in the Market Hall, Peterboro, last week, was the most successful in the history of the show. Competition was strong in every class, Orpingtons and Wyandottes being out in greatest numbers, with Plymouth Rocks a good third. Egg breeds were represented by strong classes of White, Brown and Buff Leghorns, Black Minorcas and Lancanas. Representing the heavy meat breeds were English Dorkings, Buff Cochins and Light Brahmas. The tender fruit section and Jas. E. Johnson of Simons, D. Johnson, Forest; and Harold Jones of Maitland, the apple men.

The question of a national apple show was also discussed. It was de-

Exhibitors were present from Peterboro and all nearby counties. Several fine birds shown were owned in Toronto. Miss Mary Yates of Guelph gave talks on poultry subjects and demonstrations in killing, plucking, dressing and carving birds. Mr. Bennett of Toronto placed the awards.

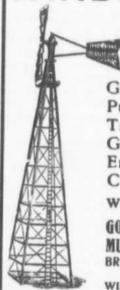
Poultry Pointers

A laying hen always goes to roost with a full crop. Buckwheat is used for fattening, and when used will bring the skin of the fowl.

Do not feed fattening foods when you desire an egg yield. Have a purpose in view and feed to maintain it.

Have a screen made of stiff soft coal ashes for use on the drooping boards and for a dust bath for biddy.

WINDMILLS



Towers fitted every five feet apart and double braced

Grain Grinders
Pumps
Tanks
Gas and Gasoline Engines
Concrete Mixers

Write for Catalogues
GOULD, SHAPELY & MUIR CO., LIMITED
BRANTFORD - CANADA
WINNIPEG, MANITOBA

The Famous "Prairie State" Incubator

is now "Made in Canada" by Gunn, Langlois & Co., Limited

As the largest egg and poultry house in Canada, we have been trying for years to interest Canadians in "More and better eggs and poultry". The demand for poultry products is growing fast—prices are high—but the supply is not increasing. Why?

Chiefly because, as a thorough investigation shows, Canadian farmers lack the facilities for producing eggs and poultry on a really profitable scale.

To be able to market eggs and poultry in the "off seasons", when highest prices prevail, you must be able to hatch as many healthy chicks as you want, when you want them, and to do this you must have a thoroughly reliable incubator. We found no incubator made here

We decided, therefore as the first step in helping to make Canada's poultry production what it ought to be, to find, or if necessary invent, an incubator that would make good every time—to manufacture it in Canada—and to sell it at the lowest possible price.

A searching and unbiased investigation of every incubator on the market convinced us that the "Prairie State" is the only incubator on the principle is correct—whose workmanship is honest throughout—whose results have proven, beyond question, thousands of times, by experts and novices, under favorable and unfavorable conditions, invariably better than any other incubator can produce.

We found more "Prairie State" incubators in use among really successful Canadian poultrymen than all other makes combined. The "Prairie State" has received 325 awards for efficiency in competition with the best of the other incubators in America, and for more than a quarter of a century its popularity has been steadily growing among poultrymen who know.

These facts satisfied us that the "Prairie State" is the incubator Canadian poultry raisers need—the incubator which we could safely endorse, make and sell. So we have made arrangements to manufacture the "Prairie State" in Canada, in our new factory at Ste. Therese, Quebec—the finest wood-working factory in the Dominion.

Our reputation for nearly 40 years of square dealing is behind our positive claim that the "Prairie State" is the best incubator on the market to-day, bar none. It hatches more strong, healthy chicks than any other incubator because—

1. It gives the correct natural heat at both top and bottom of every egg in every part of the tray regulated to a fraction of a degree.
2. Its sand tray, beneath the egg tray, gives an absolutely even and easily regulated supply of moisture to every egg.
3. It gives a steady, even supply of pure, fresh air, free from any trace of long fumes, or any draft on the eggs.
4. It works satisfactorily under practically any and all conditions.

Let us repeat that every incubator we manufacture is honestly made throughout. The machine we send you will be the same in every detail as the "Prairie State" incubators which have won prizes at every important Exhibition, and which hatch the great majority of chicks raised at every Agricultural College in Canada.

For fuller particulars read our advertisements which will appear in later issues of this paper, or better still, write now for our Catalogue. It's full of reliable, practical information for everyone interested in poultry and contains the results of actual tests made by poultry raisers throughout Canada and the United States. Just fill in the coupon and mail it—the Catalogue will be sent you promptly—free.

Name.....
Address.....

To Gunn, Langlois & Co., Limited, Manufacturers of "Prairie State" Incubators, Hovers and Poultry Supplies, 238 St. Paul St., Montreal.

ELM GROVE POULTRY FARM
FOR SALE — Good Cockerels, Single Comb Black Minorcas, & S. C. White Leghorns, Rose Comb Brown Leghorns and Broken Ducks.
J. H. RUTHERFORD, Box 61, Long Distance Phone, CALEDON EAST, ONTARIO.

A RECORD YEAR FOR ONTARIO DAIRYMEN

The Production of Cream, Cheese and Butter during 1910, ahead of all Former Records—Why Butter Should be Branded—Report of the Western Ontario Dairymen's Convention at Stratford.

That the production of dairy products in Canada for the fiscal year 1910-1911 will exceed those of the record year of 1903 by \$8,282,430 was the encouraging report of the Commissioner J. A. Ruddick at the 44th annual convention of the Western Dairymen's Association held last week in Stratford. For the fiscal year ending with March next, Mr. Ruddick estimated that our exports would be only about \$25,250,000, as compared with \$31,667,561 in 1903. Meantime, however, the home consumption has been increasing at the rate of about \$2,000,000 a year, so that the total production, including the home consumption, will exceed

that of 1903 by about the amount already mentioned. It was a mistake to conclude that because our exports are less our production also is less. The time has passed when we can judge our production by our exports.

Mr. Ruddick drew attention to the tremendous increase that has taken place in the export of cream to the United States. A portion of Mr. Ruddick's address is published elsewhere in this issue and the balance will be printed later.

IMPORTANT MATTERS

It was decided, on the request of Dairy Commissioner Ruddick, to request the Dominion Government to have why butter branded as such,

that a grade be established for milled butter, such butter to consist of a mixture of creamery butter and dairy butter or of two or more lots of dairy butter which have been manufactured in different factories and mixed together, to prohibit adulteration of milk supplied to a skimming station, shipping station, or casein factory, as this is now prohibited in the case of milk sent to a cheese factory, and to prohibit the use of preservatives in milk sent to a cheese factory.

THE TARIFF

The tariff question was not discussed during the convention, but was dealt with at a separate session of the dairymen, who passed a resolution favoring reciprocity in dairy products. A report of the discussion is published elsewhere in this issue.

OFFICERS ELECTED

The election of officers resulted as follows: Pres., Wm. Waddell, Kerwood; 1st vice-pres., D. A. Dempsey, Stratford; 2nd vice-pres., W. S. Stocks, Britton; sec.-treas., Frank Horns, London; directors, S. R. Wallace, Burgessville; J. N. Paget, Canboro; J. J. Parsons, Jarvis; J. D. Smith, Alton; S. E. Fahey, Hartsfield, and J. B. Muir, Ingersoll. I. W. Steinhilber, Stratford, and F. H. Hens were named as representatives on the Western Fair board, and Robert Johnston and Frank Hens to the Canadian National; auditors, J. A. Nelles, London and J. C. Hegler, Ingersoll.

FINANCIAL STATEMENT

The treasurer's report was as follows:—

RECEIPTS	
Cash on hand	\$ 316.33
Members' fees	308.00
Legislative grant	2,000.00
From prosecution	602.00
Money borrowed	700.00
Sale of exhibits	1,948.82
Advertising on programs	120.10
Total	\$5,995.25

EXPENDITURES	
Cash prizes for butter and cheese	\$456.00
Expenses of convention	150.00
Stenographer, office rent, etc.	672.35
Postage, printing, etc.	367.07
Judges and lecturers	251.25
Prosecutor's Salary	457.50
Periodicals for members	219.35
Reporting	75.00
Paid loan	708.50
Auditors' fees and refund	15.00
Purchase of exhibits	1,946.35
Office lights, etc.	72.18
Office furniture, etc.	134.40
Telegrams, cold storage	96.16
Half fine to factories	301.00
Total	\$5,917.11

Cash balance on hand, \$78.14.

PRESIDENT'S ADDRESS
The retiring president, John H. S. Scott, of Essex, showed that though the export butter trade had decreased

by 12,000 boxes, the home consumption had increased by over 42,700 boxes. The increase in cheese receipts for the year had been over \$25,000. He advised that most attention be given to the home market and pointed out that good quality in the manufactured products would result in a larger consumption.

MANAGER'S REPORT

The directors reported that the season had been a prosperous one. Cheese had not sold for as high prices as many expected but there had been a heavy flow of milk due to a favorable season for the cream. Butter had been nearly as good as in 1909 and although the make had been larger the market seemed able to absorb the output. A greater increase from the butter industry was predicted. Prospects for the creamery were considered bright. The importance of maintaining a high standard of quality was emphasized. The membership of the association was 316. Good was better to have resulted from the Dairy Farms Competition that had been held by Farm and Dairy.

There had been considerable alteration of milk by patrons. The incoming board of directors was advised to engage a prosecutor during 1911 as in 1907 in 1910. The number of prosecutions had decreased from 60 in 1907 to 27 in 1910. The dairy herds competition was credited with having accomplished much good. The Department of Agriculture, it was suggested, should give the association greater funds in order that this line of work might be extended. The directors believed that the Ontario Government was acting wisely in requiring cheese and butter makers to hold certificates or permits as they will have to do this year before being allowed to operate factories.

THE ADDRESSES

The convention throughout was well attended. Market interest was taken in the proceedings although many of the makers and factorymen showed a regrettable tendency to stand round the corridors while meetings were in progress. A feature of the meetings was two addresses by N. P. Hull, of Michigan. An outline of Mr. Hull's remarks will be published separately. Mr. C. F. Whitley of Ottawa repeated his excellent address on Cow Feeding, a portion of which was published in last week's issue of Farm and Dairy and part of which appears in this week's issue.

Professor S. F. Edwards, of the Guelph Agricultural College, gave an address on Bacteria and bad flavors in Dairy Products which was excellently illustrated by lantern slides. The slides showed graphically the contamination of milk that results from the admission to it of cow's hair, dust, flies, pieces of hay and other foreign material. The address was further illustrated by samples of contaminated milk, and cheese made from milk so contaminated that were shown in connection with the exhibition of dairy products. A more complete outline of this address will be given later.

Mr. Alex. McKay, of the Guelph School, gave a short review of experiments in cheese making during 1910, which was published in full later. An address on losses from over-ripe milk was given by Prof. R. Harcourt, of Guelph. Further mention of this address will also be given.

THE WORK OF INSTRUCTION

Chief Dairy Instructor and Sanitary Inspector Frank Hens reported fully in regard to the work of cheese factory and creamery instruction during 1910. A portion of these reports are published in this issue. The balance will be published later.

A GOOD CROP NEXT HARVEST

Now is the time to prepare for a rich harvest, by buying the best seeding machinery.

The Hamilton Line has no Superior



Our Elastic Cultivator is built for service—will outlast any other make—is easy to operate, and is light of draft.

Our "Leader" Drill is built along the right lines. Is durable, easy to operate and accurate in sowing. Equipped with either hoe or disc.

Write to-day for our Catalogue F., which describes these two machines.

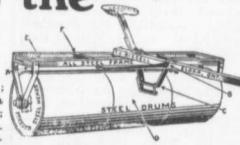
Be sure to see our machines before buying

The Peter Hamilton Co., Ltd.
PETERBOROUGH, ONT.

Make sure it bears the "Bissell" name

Like most experienced farmers, you want the "Bissell" Land Roller, but you'll need to be careful or you may get an imitation. Therefore, be sure that the name "Bissell" is stamped on the roller you buy, for no roller is a genuine "Bissell" unless it bears the "Bissell" name. In no other roller will you get large

Roller Bearings, 1/2 inch in diameter; nor solid malleable cages; nor a steel plate bottom in the frame; nor drums riveted every two inches. No other roller has the seat projected over the frame and the low Draw Bracket to balance all the weight off the horses' necks. Our Roller Booklet describes many other



exclusive "Bissell" features and shows our C. S. and B. H. styles. Ask Dept. R. to send you a copy. We also supply Grass Seeder Attachment for use on "Bissell" Land Rollers.

T. E. Bissell Company, Ltd., - Elora, Ont.

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Mr. G. A. Putnam, of Toronto, Director of Dairy Instruction, advised the association to educate the public in regard to the value and cheapness of cheese as a food. The Department of Agriculture was spending \$57,000 a year on dairy instruction. It found that it was the man whose cows were producing 6,000 to 8,000 pounds of milk a year on the average who was the most anxious to gain further information as to how to effect further improvements. It was the indifferent man who was the hardest to reach. The Department is planning to undertake the more aggressive work hereafter and to insist on better care being taken of the milk on the farm. A meeting of the chief instructors is to be held to consider the best means to adopt. A consolidation of some of the smaller factories was advocated in order that better buildings might be erected and the makers paid better salaries. A few makers who had applied for permits to operate factories during 1911 had been refused. They had been informed that they would be given permits as soon as they took a course at the dairy school.

Professor Harcourt stated that cheese stands among our cheaper foods. Most people, however, seem to consider it indigestible. This was because dairymen have shown a tendency to sell the cream and culled cheese on the home markets. Were the quality of the cheese improved, the home consumption would increase rapidly.

THE CARE OF CREAM

Mr. Geo. H. Barr, Chief of the Dairy Division, Ottawa, gave a valuable address which reported the results of experiments the Department conducted last year in the care of cream. They showed that cream intended for creameries should be kept in the average farm culler not over 36 hours, and be delivered in sweet condition. Ninety per cent. of the cream for factories is so kept, and the quality of the butter suffers accordingly.

OVER-CROWDING AND ISOLATION

"The curse of the city is in its crowding; the evil of the country is in its isolation," said President Greenman, of the Guelph College. "To remove the latter, education and cooperation will be sound the most effective remedies. Cooperation, as illustrated in the Niagara district, means smaller farms, more per acre, better roads, rural phones, rural mail delivery, and better transportation facilities."

BOOK FARMING

Mr. W. D. Albright, of the Farmers' Advocate, gave a carefully prepared address on Book Farming. He showed that what is commonly called book farming is really the application in farm practice of the best principles worked out by large numbers of practical farmers on their farms as well as of the lessons from experiments conducted through the Experiment stations and colleges. Farming has become such a science that it is becoming more and more necessary that farmers shall use their brains as well as their muscles in the conduct of their farm operations.

THE PRESENT FARM

A public presentation of the prizes won in the Dairy Farms Contest held throughout Ontario during the past two years by Farm and Dairy took place Thursday evening. Hon. Nelson Monteith presented the first prize to the winners, Mr. and Mrs. R. A. Penhale of St. Thomas. Mr. E. G. Herderson, of Windsor, presented the second prize to Mr. and Mrs. J. W. Richardson, of Cabotown. The winners were complimented highly upon their success. Mr. Monteith also presented the prizes to the successful cheese and butter makers in the dairy exhibition.

Tariff Discussed at Stratford

The dairymen of Western Ontario, like their brother dairymen of Eastern Ontario, although apparently not with the same unanimity of opinion, desire free admission for their dairy products into the markets of the United States. By a vote of about two to one they carried a resolution to that effect last week at Stratford. The resolution was the same as that carried the week before by the members of the Eastern Ontario Dairymen's Association. It was as follows: Moved by J. A. Biehn, of Bright; seconded by George Rice, of Tillsonburg; that the Dominion Government be respectfully but most strongly urged in the negotiations now pending between Canada and the States, to provide for complete reciprocal trade in dairy products.

The resolution was not passed by the members of the Western Ontario Dairymen's Association as an association. Before the matter came up for consideration President J. J. H. Scott of Exeter, announced that the Dairymen's Association had always insisted that matters at all political in their nature should not be discussed at their conventions. A request had been made that the matter of the tariff on dairy products should be discussed during the convention. The members could not consent to such a discussion taking place at any of the sessions of the conventions. They had no objection to its being considered by the dairymen present at a special meeting if they so desired. Mr. Scott then adjourned the session of the convention and retired from the platform.

THE MATTER DISCUSSED

A special meeting was then immediately convened and Mr. Scott retired to the chair. On taking the chair Mr. Scott expressed his pleasure that the matter was to be discussed. After an exhaustive discussion of the subject the resolution was passed. A full report of the discussion will be given in Farm and Dairy next week.

Dairy Herd Competition

Greater interest in increased production per cow has been created in recent years among cheese factory and creamery patrons in Western Ontario by the dairy herd competition. It will be noted in the following report of the prize winners that this year the winners have raised the record for milk and fat production per cow over that set in previous years. The Dairymen's Association donated \$100 in cash prizes. Ryrie Bros. gave two medals, a silver and a bronze one, as sweepstake prizes for each class. Rules and regulations governing the competition this year were practically the same as in former years. The awards follow:

CHEESE FACTORY PATRONS

- Class 1, Sect. 1.—Herds of 8 to 14 Cows.
 1. Jno. Van Slyke, Siverside, Dunbrnoy, Ont.; 50 acres in farm; 10 Holstein grade cows; 75,426 total lbs. of milk; 7,542 lbs. of milk per cow; 754.26 lbs. milk produced per acre.
 2. Seymour Cuthbert, Sweeneyburg, Ont.; 75 acres in farm; 14 Holstein grade cows; 103,871 total pounds of milk; 7,419 lbs. per cow; 1,385 lbs. per acre.
 3. Jno. W. Cornish, Sprucedale Farm, Harrietsville, Ont.; 50 acres in farm; 10 Holstein grade cows; 70,062 total pounds of milk; 7,115 lbs. per cow; 1,412.5 lbs. per acre.
 4. Wm. W. Bartley, Poplar Grange, Belmont, Ont.; 50 acres in farm; 5 Holstein, and 3 grade Shorthorns; 51,775 total pounds of milk; 6,472 lbs. per cow; 1,035.5 lbs. per acre.
 5. Isaac Askin, Fairview, Carleton.

(Continued on Page 15.)

This 5-Ton Scale Is Easy To Buy—

You need not club with your neighbors to equip your farm with the scale you need—the CHATHAM Pitless Scale. You can afford to buy it yourself. It will save you more than its cost in one season. YOU HAVE UP TO five tons it will weigh NO OTHER accurately all you buy or sell. You can erect it ready to use in a morning.

No Pit To Dig
No Extras To Buy



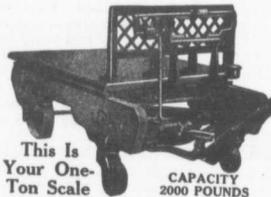
Your Chatham Pitless Scale will be YOUR Scale that you can take with you when you move. You can always get for it what you paid for it. And you need no skilled help to set up the CHATHAM—it comes to you complete, with plain directions. Built wholly of heavy steel. Nothing to rust, decay or go wrong. Government guaranteed its absolute accuracy. Tested before it leaves the factory. Warranted fully.

This Is The Complete Scale

Bear in mind that you have no hard work to do in setting up a CHATHAM. It is all solid steel, stands on its own feet above ground,—no pit to dig, no fussy preparation needed before you use it. Comes to you so you can be weighing on it in a few hours after you get it. No skilled mechanic necessary at all.

Special Compound Beam — No Extra Cost

This season we include our new Compound Beam with each CHATHAM Pitless Scale without adding a cent to the price of it. You can find no bigger bargain; yet the price is 'way down low. In sections where we have agents we offer special long-time credit terms to those who would rather try the Scale before they pay for it. Write us and ask for full details.



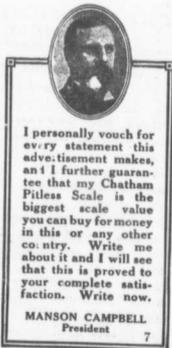
This Is Your One-Ton Scale

CAPACITY 2000 POUNDS

Handy to move about as a wheelbarrow, yet accurately weighs up to a full 2,000 pounds. Swivelled pole and front wheels let you turn it short through doorways and around corners. Strong and staunch, too, like all scales we build.

You'll Never Wear It Out

Main frame is one solid and very heavy casting. Levers are special heavy and strong, so they won't spring under excessive strains. Bearings align themselves, because pivot rests on bearing loop—tilt the scale and it will still weigh right. And the price is very small!



I personally vouch for every statement this advertisement makes, and I further guarantee that my Chatham Pitless Scale is the biggest scale value you can buy for money in this or any other country. Write me about it and I will see that this is proved to your complete satisfaction. Write now.

MANSON CAMPBELL
President

WRITE US AND ASK FOR DETAILS
MANSON CAMPBELL CO. LTD.
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FARM AND DAIRY AND RURAL HOME

Published by The Rural Publishing Company, Limited.



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2. SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance. In Britain, \$1.25 a year. For all countries, except Canada and Great Britain, add 50c for postage. A year's subscription free for a club of two new subscribers.

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

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The paid subscriptions to Farm and Dairy exceed \$4,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 8,000 to 10,000. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead circulation.

Sworn detailed statements of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

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We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. In order to be entitled to the benefits of our protective policy, you must be the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction with profits thereof, and within one month from the date that the advertisement appeared, in order to undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY PETERBORO, ONT.

ARE OUR FARMERS RADICAL?

The stand for a reduction in tariff as taken by our farmers recently at Ottawa has been characterized in many quarters as radical and revolutionary. Why should it be so characterized when all that we ask for is that the Government fulfill its pledges made when in opposition and that the promises, made when protection was first instituted, should be carried out? When we, through our representatives at Ottawa, consented to a protective tariff for the fostering of infant industries, we were told that such protection was to exist only for a short time until the said industries were in a position to stand on their own feet.

It was then clearly realized and admitted by both manufacturers and consumers that protection is simply a transfer of wealth from one producing class to another and cannot increase the wealth of the nation as

a whole. Canadian manufacturers are now strongly established. The majority of them are paying dividends on their investment, such as few farmers are able to realize on the investment in their farms. Is it not time that the protection given to our manufacturers as infant industries and which enables them to prey on the productive classes of the community, should be removed?

Many plausible arguments are put forward in support of our present tariff schedules. Enumerated, these are: The building up of a home market; the drawing of capital from other countries to Canada; and the danger of annexation, which might follow free trade relations with our southern neighbors. These arguments, however, cannot lind either the farmers in the country, or the consumer in the town, to the fact that the burden of protection must fall on them. And drawing on one producing class of the community for the benefit of the other cannot permanently increase the welfare of the country; furthermore it lays an undue load upon the farmer and the working man.

Our demands as farmers are neither revolutionary nor radical. They are founded on sound economic reasoning. And we ask for nothing that was not promised to us long ago. The agitation, which we have started for freer trade with the United States and with Great Britain, has the united support of the grain growers of the west and of the farmers of the east. Our cause must win, for in a democracy such as ours, the will of the majority, in the long run, rules.

A FARMER'S REGRET

"As I look back over my life," said a prominent farmer of Frontenac Co., Ont., recently to an editor of Farm and Dairy, "I see that if I had invested \$100 or \$200 in pure bred stock at the beginning, my herd to-day would be worth at least \$2,000 more than it is while during the years that have gone, I would have made much more from the sale of my surplus stock and my cows also probably would have given more milk."

There are thousands of young farmers in Canada to-day who are making the mistake that was made by this man. They know it costs them just as much to keep a grade herd as it would were they to keep a herd of pure Reds. Yes, and there are thousands of elder farmers who are making the same mistake! They do not seem to realize that if their sons are to be interested in and their services retained upon the farm they must be given, or allowed to do, work that is worth while, work that is of interest, and work that has prospects of an ever-widening future. In other words the boys of to-day are looking for something to do. They want a sphere worth while. Pure bred stock to a great extent will furnish the necessary loadstone to keep the boys at home and if wisely handled there should result gratifying returns from the pure bred stock.

Countless herds throughout this Do-

minion, and a large majority of these located in the older settled portions of Ontario and Quebec where agricultural periodicals and farmers' organizations are common and enlightenment supposedly prevails, are no better to-day than they were 20 years ago. Little if any improvement has been made. In some cases, it is true, spasmodic attempts have been made at improvement, but these have resulted only in efforts wrongly directed and the result of which has been the indiscriminate crossing of breeds and the present low standard of so much of the farm stock.

Surely with the able leadership of successful breeders scattered here and there, one or more in every locality, there is but a minor risk, if any, in laying down by each and every farmer a policy of stock improvement, which if but acted upon would mean an increase of millions in the individual and general wealth of our farmers.

PROFITABLE DISPOSAL OF FEED

More surplus feed than usual is this season available on the farms of Ontario. In order to dispose of it satisfactorily many have purchased steers, which they are now feeding. Probably not in years have there been so many steers feeding in Ontario as there are this winter. These cattle, mostly from the west, were bought last fall at unusually long prices. The markets next spring, or when these cattle are to be disposed of, will need to be abnormally high if the feeder is to realize a fair price on the feed consumed.

Almost without exception, the most profitable way to dispose of fodder and coarse grains as raised upon the farm is to convert it into the finished products of live stock. Feeding steers is one way, and often a good way of disposing of this feed, but the business at its best is one fraught with much uncertainty. Under ordinary good management, the feeder-buyer is sure of what profit is represented in the manure, which is essential for maintaining the fertility of his farm. This item of profit—if so we choose to term it—however, is equally certain, be the fodder given to dairy cows on a farm where all-year-round dairying is practised. And a dairy cow, particularly where special emphasis is laid upon winter production, will yield handsome returns over and above the fertilizing value of her manure.

He who is practising winter dairying, as against feeding store cattle, is in an enviable position this year. He need not worry about a profitable market for his surplus feed. He is sure of it. His good dairy cows will consume the home-grown feeds and return good wages for labor in addition to the market price for feed consumed.

And then, we should not overlook the fact that good dairy cows, even in seasons of short crops, can be kept at a profit. Such cattle will give profitable returns even if of necessity we must give them high priced milk stuffs. Furthermore, as is the case

with any stock, these purchasing feed to be fed at home will add to the fertility of their farms.

The fact that dairy cows are capable of giving a good return for feed consumed is becoming more and more appreciated. The keen demand and the high prices now ruling for all kinds of milk cows prove this. Hundreds of farmers throughout the country are coming to see the full force of the arguments in favor of winter dairying and are taking steps to have more of their heifers and older cows freshen in the fall in order that they may reap the full advantage of the sure and profitable market before them for their feed marketed as dairy products.

Although smoking is a habit quite general amongst men, there are but

few who will claim
A Question that it is a benefit or of Morals who will advocate the use of tobacco. During the regime of Dr. Mills at the Ontario Agricultural College the smoking habit was frowned down upon and was not permitted on the part of the faculty or by the students save in the special smoking room and then only at stated hours. Things at the College now are quite different. Anyone and everyone can smoke with but little restriction. This is not altogether as it should be. Many of the younger men of this country have become users of tobacco through the influence of College mates and because those whom they respected and revered made use of the "weed." Another concession is now being sought by the student body. They have petitioned the Hon. J. S. Duff, Minister of Agriculture for the province to the effect that mixed dancing be allowed with their allied co-educational school, Macdonald Institute. Mr. Duff should move very carefully in this particular. There is a strong and widespread opinion throughout the country against mixed dancing. The college cannot afford to have any people prejudiced against it. Any lowering of the bars against these moral questions should not be countenanced. Even now it is a question if the moral standards at the Guelph College are as high as they were in the days of Dr. James Mills.

The harvesting of ice should be regarded on the dairy farm as much a part of the season's work as is the harvesting of hay. To deliver milk or cream at the factory
The Farm in such a condition
Ice Harvest that it will make the very best quality of cheese or butter, the use of ice in cooling is an absolute necessity. To harvest and store a supply of ice sufficient to meet the needs of the average dairy farmer does not call for any large cash outlay. If the ice is properly packed, any kind of a cheap shed will keep it satisfactorily. The direct returns that will result from having all milk accepted and the still larger indirect returns due to the better quality of dairy produce marketed, will give large dividends for

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the labor and time expended in har-
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 ice is now, during crisp cold weather,
 while the ice is of good quality.

Creamery Department

Butter makers are invited to send con-
 tributions to the department on ques-
 tions on matters relating to butter making
 and to suggest subjects for discussion.
 Address letters to Creamery Department

From Cow to Churn*

Prof. H. H. Dean, O.A.C., Guelph
 It is very important that we un-
 derstand the laws and principles of
 any undertaking in order to insure
 success. Theoretically the principles
 of buttermaking from cow to cream-
 ery churn are easily understood,
 practically they are not so easily
 worked out. To the man who never
 owned, fed or milked cows, a pro-
 duction of 300 lbs. butter per cow
 looks as easy as "rolling off a log."
 To the man who never made butter
 in a creamery, the manufacture of
 "concentrated sunshine" in the form
 of delicious, sweet-flavored bread lu-
 bricant is as easy as to say "Jack
 Robinson." In practice, however,
 cows have a fashion of disappointing
 the revolving arm-chair farmer; while
 many a man in making creamery
 butter has congratulated himself on
 his skill and judgment before he got
 his returns from the commission
 house, butter buyer or customer.

SOME OF THE PRINCIPLES

1. The use of pure-bred dairy sires of butter producing ancestry which have the power to produce an upward variation in their progeny. In a word, use tried mature males in preference to untried immature animals. The practical difficulty to overcome in adopting this plan is to be sure that we are getting such animals and that they are free from disease and viciousness.
2. Rearing all the heifer calves possible so far as stabling, feed and labor will permit; testing the heifers by means of scale and milk-fat test and discarding all those which do not come up to a minimum standard of 250 lbs. butter at the end of their second lactation period.
3. Feeding the cows on milk-pro-
 ducing foods such as grass, clover,
 corn, mangels, oats, peas, bran, and
 oil-cake, gluten or cottensed meal.
 Feed liberally of roughage and of
 meals according to milk-fat produc-
 tion—six to eight pounds of meal for
 each pound of milk-fat. The profit-
 ableness or otherwise of a ration can
 be determined only by experiment.
 Each feeder ought to be an experi-
 menter with individual cows, as well
 as with the whole herd.
4. Maintaining the health, vigor
 and constitution of the cows by sani-
 tary stabling, which means clean,
 light, well-ventilated buildings, and
 cows kept clean by the use of comb
 and brush, or vacuum cleaners; and
 a reasonable amount of exercise in
 fresh air and sunshine.
5. Clean milking, with immediate
 separation of a cream testing 25 to
 35 per cent. fat together with cooling
 of the same to a temperature of 50
 degrees Fahrenheit, or lower, and
 maintaining the cream at this tem-
 perature; also the washing of the sepa-
 rator after each time of using. At
 this point the separate responsibility
 of the cow-owner and cream-producer
 usually ceases and the creamery owner
 along with the cream-hauler or trans-
 portation company assume a share of
 the butter burden, except in cases
 where the cream producer delivers
 the cream to the creamery.
6. Given good, sweet or slightly acid

raw material, Canadian buttermakers
 as a rule, are able to make fine butter,
 if they have a sanitary building
 equipped with modern machinery and
 having an abundant supply of pure
 cold water. We believe that the sys-
 tem of pasteurization will eventually
 be quite generally adopted by On-
 tario buttermakers. Elimination of
 poor flavors, more uniform salting,
 and added keeping quality in the but-
 ter are points which should receive
 the careful attention of creamerymen
 everywhere. Butter scoring not less
 than 90 to 95 points should be aimed
 at always and all the time.

Creamery Instruction in Western Ontario

Frank Hens, Chief Dairy Instructor for Western Ontario

The instructors visited 92 creamer-
 ies. This is 10 more than last year
 and is accounted for by taking over
 five in the North formerly visited by
 the Eastern Ontario Instructor. Several
 plants in Toronto now make but-
 ter and a couple of cheese factories
 turned over to butter making, making
 up the balance.

The quality of Western Ontario
 butter showed improvement last year.
 We consider that practically
 all of this butter made from col-
 lected cream, in many cases collected
 two or three times a week and hauled
 long distances, we believe that pro-
 gress is being made. The print trade
 has increased, with the home con-
 sumption in Canada is growing every
 year. Very little complaint was
 heard of mould and mottles.

PATRONS VISITED

Patrons to the number of 17,971
 sent milk and cream to the creamer-
 ies. This is 666 more than last
 year. A great improvement in the
 quality of the cream and consequently
 the quality of the butter can be
 brought about if the patrons many
 of whom up to the present time have
 not taken proper care of the separa-
 tors or the cream, can be induced
 to take more interest in this matter.
 The instructors were able to visit
 the farms of 323 patrons, going out
 on the cream routes with the haulers
 and using what little time they had
 to instruct the patrons in the care
 and handling of separators and the
 cooling and care of the cream. This
 is good work and in all cases brings
 results, but with the large number of
 creameries and the large territory
 which the two creamery instructors
 have to cover, it is difficult for them
 to accomplish all that could be desired
 among the patrons. To believe there
 is room for one more creamery in-
 structor who should devote all his
 time to the farm side of the work.
 Were arrangements made whereby
 such a man could be engaged the re-
 sult in the improvement of the cream
 would many times repay the cost.

Six creameries only now use the oil
 test; four less than last year. We
 trust the time is not far distant when
 the use of date oil test will be known
 only in memory.

SCALES AND PIPETTE
 Sixty-nine creameries use the pi-
 pette in testing cream. Twenty-three
 creameries use the scales; nine more
 than last year. Several of these
 creameries use the scales only when
 selling cream. Why? There is now
 placed on the market a 12 bottle
 cream scale that is free from the ob-
 jections raised with respect to the
 balancing of some of the scales former-
 ly sold for weighing cream samples.
 Any argument therefore against the
 use of scales cannot now be considered
 of as much importance as formerly;
 at least from the standpoint of scale
 accuracy.

Have you forgotten to renew your
 subscription to Farm and Dairy?



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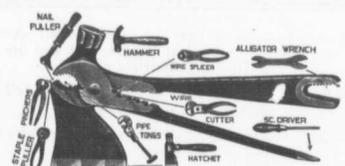
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 tween the jaws) you will be able to make many repairs without hiring an expensive plumber—a great saving in itself. These together with the Nail Puller, Pinchers, Wire Cutter, Staple Puller and Wire Splier, are all worked out on scientific principles, and are as perfect as they can be made. The Hatchet is a tool chest full of the finest grade of tools all in compact form. Any tool wished for can always be found without loss of time. These ten tools would cost ordinarily \$5.00. If you were to purchase the ten tools represented in the Hatchet you would run chances of getting some of the tools imperfectly made.



Free, for only 2 new yearly subscriptions to Farm & Dairy. Samples of paper sent on application to

CIRCULATION MANAGER

PETERBORO, ONT.

*Extract from an address before the W. O.D.A. convention at Stratford, last week.

aggregate results. It we are to believe statements made in this connection, a very large proportion of the milk is produced without profit. If that is so, the big total means very little. Let us look carefully after the items, and the totals will care for themselves.

The Dairy Exhibit at Stratford

As usual the exhibits of cheese and butter at Stratford last week, in connection with the annual exhibition of the Western Ontario Dairymen's Association, proved one of the most interesting features, from an educational standpoint, of the convention. The exhibits of both cheese and butter were about the same in number as a year ago, they were staged in a separate building. The rooms in which they were shown was tastefully decorated.

The quality of the exhibits, including both cheese and butter, is ahead of other years in every respect especially as regards the finish. The makers each year have an opportunity to examine the goods of the other exhibitors and endeavor to gain suggestions for improvement in their own.

The exhibits were purchased by Dairy Commissioner J. A. Ruddick, who will exhibit them next year at leading exhibitions in Great Britain. The sweepstakes cheese was bought from him by W. J. McCully, to be sent to Winnipeg. The Stiltons

were bought at 28 cents, the solids, 1/2 cents and the cream 12 cents. Considerable attention was attracted by the exhibit of Stilton cheese. There were 14 exhibits by 14 different factories. Some special prizes were offered in this class by Mr. C. James, Deputy Minister of Agriculture.

The Guelph Agricultural College made an exhibit of cheese manufactured from normal milk inoculated with yeasts taken from unpasteurized whey from the whey tanks of some Western Ontario Factories.

CHEESE AWARDS
September white—1, B. F. Howes, Atwood, score 95.66; 2, H. Donnelly, Staffordville, score 95.33; 3, R. A. Thompson, Atwood, score 96.16; 4, C. H. Lockman, Carthage, and C. A. Barber, Woodstock, tie with a score of 95.82.

September colored—1, J. E. Stedebauer, Listowel, score 95.00; 2, J. Cuthbertson, Sebringville, 95.65; 3, C. J. Drannelly, Sebringville, 95.49; 4, C. A. Barber, Woodstock, 95.49.

October white—1, J. K. Brown, Etobicoke, score 95.98; C. J. Donnelly, Scotland, and R. A. Thompson, Atwood, were both scored the same, 95.66, but Donnelly got second place because of being higher in the flavor score; 4, A. E. Shapland, White Oak; 95.49.

October colored—1, R. A. Treleaven, Hothsary, score 95.82; 2, P. Callan, Woodstock, and G. Cameron, York, were equal in score, 95.66, but Callan got it on flavor; 4, R. A. Thompson, Atwood, 95.49.

CREAMERY BUTTER AWARDS
Winter creamery, 56 pound box—1, John Cuthbertson, Sebringville, score 95.49; 2, Thos. Humphrey, Avonbank, 95.32; 3, H. Hugh Patrick, St. Thomas, 95.82.

Twenty one-pound prints—J. A. Waddell, Kerkwood, and R. A. Thompson, Atwood, both scored the same, 95.66, but the first got it because the flavor score was higher; 3, E. M. Johnston, Inverkip, 95.32.

October butter, 56-pound box—1, Geo. Medd, Winchelsea, score 95.82; 2, W. H. Brubaker, Dresden, 95.40; 3, H. Patrick, St. Thomas, 95.32; 4, J. A. Waddell, Kerkwood, 95.32.

Specials—Heller & Mertz for butter—J. A. Waddell and R. A. Thompson, equal.

Dairy specialties on cheese—1, B. A. Howes; 2, R. A. Treleaven.
Slawson special on cheese—J. Cuthbertson; C. J. Donnelly.
J. B. Ford & Co. special for best finished butter and best finished cheese—C. A. Barber on cheese and H. Patrick on butter.

Canadian Salt Company's special for butter—W. Waddell and R. A. Thompson, equal.

Western Salt Company's special for cheese—B. F. Howes for September white and R. A. Treleaven for October colored.

Western Salt Company's special for prints—W. Waddell and R. A. Thompson, tie.

C. C. James, Stilton, special—1, R. A. Thompson; 2, P. Callan.

Marshall Dairy Laboratory, a gold watch—J. E. Stedebauer.

Imperial Bank Silver cup, for two highest scoring cheese.—R. A. Thompson.

Cheese Buyer's Trophy—Challenge Cup, valued at \$150.—B. F. Howes.

Since the form of Farm and Dairy containing editor's mention of the petition of the O.A.C. students for the privilege of dancing at the College has gone to press word has been received that the Hon. J. S. Duff, has granted their petition.

Dairy Herd Competition

(Continued from Page 11.)

age, Ont.; 100 acres in farm, 12 Holstein cows, 62,972 total pounds of milk; 5,247 lbs. per cow; 629.2 lbs. per acre.

Class 1, Sec. 2.—Herds of 15 cows or over.

1, W. F. Pearson, West View, Holbrook, Ont.; 100 acres in farm, 20 Holstein and Holstein grade cows; 122,570 total pounds of milk; 6,218 lbs. milk per cow; 1,325.7 lbs. of milk produced per acre.

CREAMERY PATRONS
Class 2, Sect. 1.—Herds of 8 to 14 Cows.

1, R. M. Bowie, Maple Lane, Beachville Ont.; 50 acres in farm; 11 Holstein grade cows; 2,479.8 total pounds of butter fat; 225.4 lbs. of butter fat per cow; 49.6 lbs. butter fat produced per acre.

2, Geo. Bouchrier, Echo Farm, Plattsville, Ont.; 25 acres in farm; 8 Jersey grade cows; 1,218.5 total pounds of butter fat; 152.3 lbs. fat per cow; 48.7 lbs. per acre.

3, C. Johann, Fairview Farm, Belmore, Ont.; 200 acres in farm; 9 Holstein grade cows; 1,341 total pounds of butter fat; 149 lbs. per cow; 6.7 lbs. per acre.

Class 2, Sect. 2.—Herds of 15 cows or over.

1, E. W. Lick, Beachville, Ont.; 250 acres in farm; 16 Holstein grade cows; 3,279.6 total pounds butter fat; 204.97 lbs. per cow; 13.1 lbs. per acre.

2, Wm. Hutchison, Pleasant View, Princeton, Ont.; 200 acres in farm; 21 Shorthorn cows; 3,500 total pounds butter fat; 166.8 lbs. per cow; 17.5 lbs. per acre.

3, Courtney Carr, Ingleside, Beachville, Ont.; 100 acres in farm; 22 Ayrshire and Jersey grade cows; 3,238.5 total pounds butter fat; 147.2 lbs. per cow; 32.38 lbs. per acre.

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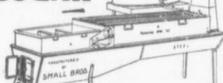
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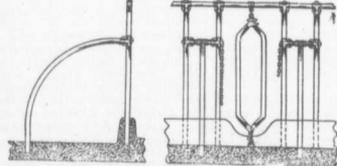
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WHEN the outlook is not good, try the uplook.

The Road to Providence

(Copyrighted)

MARIA THOMPSON DAVIES

(Continued from last week.)

SYNOPSIS OF THE ROAD TO PROVIDENCE

Mrs. Mayberry, a country physician's widow, living near the town of Providence, has taken into her home Eliza Wingate, a beautiful young woman and a famous singer who has mysteriously lost her voice. Mrs. Mayberry is much loved and respected throughout the countryside both for her goodness of heart and for the skill with which she treats minor ills. Her son Tom is a rising doctor in the city, but among the home neighbors there is a humorous preference for "Mother's" Mayberry's remedies. In learning to mix and bake "light biscuits" and accomplishing other domestic tasks Miss Wingate becomes happier than she has been at any time since the loss of her voice compelled her to cancel her contracts.

YOUNG Ez's garments even had proved a size to large and the faded blue jeans "britches" were rolled up over his round little knees and hitched up high under his arms by an improvised pair of calico "galluses" which were stretched tight over a clean but much patched gingham shirt. His feet and legs had been stripped in accordance with the time-ordered custom in Providence that bare feet could greet May Day, and his little bare, pink toes curled up with pretense against the roughness of even the dust-softened pike. Susie May, Billy and young Ez leaped with pride at their share in the exhibiting of the recent acquisition and waited breathlessly for words of praise from Miss Wingate and the Doctor.

"Why, who is this?" asked the Doctor quickly with a most gratifying interest in his big voice, while Miss Wingate came out of the gate on to the pavement.

"It's the little missionary boy that the Deacon brought Mother Mayberry. I guess the Lord sent him, for he's too big to come outen a cabbage," answered Eliza, and as she spoke she settled the hat an inch farther down over the curls with a motherly gesture. She had failed to grasp with exactness the situation concerning the advent of Martin Luther, but was supplying a version of her own that seemed entirely satisfactory to the youngster's newly acquired friends.

"Spit through teeth," ventured the young stranger, anxious to display an acquaintance with the custom that had been bestowed upon him by Billy while the "galluses" were in process of construction a few minutes ago. "Thank ma'am, please," he hastened to add with pathetic loyalty to some injunction that had been impressed upon his young mind before his embarkation upon strange seas.

"Let me see you do it," demanded the Doctor, in instant sympathy with his pride in this newly acquired national accomplishment.

"He hasn't got time to do it now," answered Eliza impatiently, as she hitched together a notch higher up on her arm. "I want to take him and the baby in to Mother Mayberry to see if his other tooth have come up enough for Maw to rub it through with her thimble." Though she did not designate Teether as the subject of the operation, the audience understood that it was he and not Martin Luther so fated.

"Oh, no, no!" exclaimed Miss Wingate in horror, and she reached out and took Teether into protective arms. The day had been a long and weary one for Teether Pike and he dropped his tired little head over on the cool pink muslin shoulder and nestled his aching jaw against the smooth white neck.

"Hold him still just a second as he is," said Doctor Tom quickly, and in an instant he had whipped a case from his pocket selected an instrument and, inserting his finger between the pink lips, he rendered unnecessary the agony of the maternal thimble. It had been done so quickly that Teether himself only nestled a bit closer with a moan, and Miss Wingate locked up at the operator with grateful eyes. She hugged the limp baby closer and started to speak, but was interrupted by an anxious question from Eliza.

"Did you cut it?" she demanded.

"Yes," answered the Doctor non-committally.

"Well, Maw'll be mighty mad at you, for Mother Mayberry asked her last night to let you cut it and she said she'd thimble the rest of us and she reckoned he could stand it too. If it was me, I'd let you cut me wide open and sew me up again upon the Doctor," and Eliza beamed upon the Doctor with an affection that was the acme of idealization. She had forgotten that only a few hours ago she had renounced her loyalty at the memory of the oil, but Miss Wingate smiled in appreciation of this display of further feminine inconsistency.

"Shucks," said Billy, "you'd holder 'fore he could cut out. I'm a-tot and 'Lias Hoveer have got two warts he can cut out, if he gives him a piece of catgut string to tie on fish hooks. And Billy looked as if he expected to see the Doctor entirely overwhelmed at the prospect of so much practice so easily obtained.

"Go take Martin Luther to show Mrs. Mayberry, Eliza," said Miss Wingate with a laughing smile over the baby's head, at the Doctor and the baby. "I'll come on with the Doctor Mayberry at her side. When they reached the front steps she seated herself on the top one and slowly lowered the drowsy little chap, until his head rested on her breast and her arms held him cradlewise. She began a low husky humming as she rocked herself to and fro, watch-

ing breathlessly the fringed lashes sink over his wearied eyes, until they lay like shadows on the purple circles beneath. She was utterly absorbed in getting Teether into a comatose condition, and had no eyes nor ears for the Doctor; not that he claimed either.

He sat for some moments watching her and listening breathlessly to the low music that came through the wonderful throat, as if from some master instrument with strings uncouthly muted. And as he looked, the horrible thought clutched at his own heart. Suppose he should not be able to free her voice for her! Many others had tried—the greatest—and they had all been baffled by that strange stiffness of the chords. He knew himself to be, in a way, her last resort. A world of music lovers awaited the result. He had been obliged to send out two Press bulletins, as to her condition within the week, and took Teether into his arms to sleep, shut in by the Harpeth Hills with only him to fight her fight for her. He almost groaned aloud with the pain of it, when into his consciousness came "Mother Mayberry's placid voice shouting the Pike children home with promises and admonitions. A line from Doctor Stein's letter came to his mind:

"And first and above all, want your mother to put heart and hope into the girl." The fight was not his alone, thank God, and he knew just how much she could trust to his mother's heart-building. When not over the land men were learning to strengthen the man within before attempting to cure the man without. Hadn't that always been his motto, their unconscious policy out on Harpeth Hills? A deep calm fell into his troubled spirit, and, as the singer lady and Mother escorted the escort down the walk, he slipped away into his office for a hot supper with his reports and microscope.

A half hour later Mother Mayberry came into his office for the little chat she often took before the summons to supper. She seated herself by the open window, through which the twilight was creeping, and he threw down his pen and came and stood leaning against the casement.

"Well," she said with a long breath of contentment, "well, I do feel about ready to get ready to rest. The Pikeses is all in, I heard Bettie Pratt calling in the Turners and Pratts and Hoovers, Buck have come home to supper on time, as I know will relieve Bettie Ann's mind, Squire Tutt just went in the front gate as I come up the walk and I seen Miss Beck light the lamp in the Deacon's study for the first time in a minute ago. They ain't nothing in the world that makes me so contented as to know that all Providence is settling down to meals at the same time and on account of Him—ours is late on account of Eliza deciding at the last minute to beat up some clabber cheese with fresh cream for your supper, like she says they fix it up over in Europe somewhere she lived, like she was a-studying to sing. I come on out so she could have a swing to herself and not think anybody was a-hurrying of answer. It's a riled woman as generally gives it, it's life or death or a chicken-hawk."

"But, Mother," remonstrated the Doctor with a very real distress in his voice, "ought you to let her—Miss Wingate do it—she's got so many things? Are you sure things—so many it and is not just doing it to help or because she thinks she ought? Or do you—?"

"Wall," interrupted Mother decidedly, "it's my opinion that it's nothing in the world so heavy as empty hands. She have had to lay down a music book and I don't know nothing letter to offer than a butter-paddle and a ham and it's the feeding of folks that counts in a woman's life, whether it be songs or just bread and butter. If Eliza's cause was as much of a success as her rice biscuits have come to be, I wish I could have heard her just once."

"I did, Mother, the first night she sang in America—and it was very wonderful. When I think of the great opera house, the lights and the flowers, the audience mad with joy, and the applause and—I—wonder how she stands it?"

"Yes," answered Mother, "I reckon wondering how Eve stood things muster took Adam's mind often hisself to a very comforting degree. Courage was the ingredient the good Lord took to start making a woman with and it's ever a witnessin' His spirit in her ever since. I oughtn't to have to tell you that."

"You don't," Doctor Tom hastened to say, "I've been sitting down on Mother. I only spoke as you said about Miss Wingate because you see she is very well, what we would call a very great lady and I wouldn't have her sit biscuits that I did not realize that—"

"Well, you can do as you choose," answered Mother placidly as she prepared for her departure to see to the finishing up of the supper, but I ain't a-letting no foolish pride hold my heart back from my honey-bird. Love's my bread of life and I offers it free, high or low, come on and see how you like these fixing she's done made for you."

CHAPTER III. THE PEOP'LE-GAL AND THE BUMPKIN.

"There's just no doubt about it, it Tom Mayberry weren't my own son and I had occasion to know better from the looks of his heels, the week Cindy durns the socks. Every then I take a hand at it. Just look, Eliza, did you ever see a worse look than this?" As Mother Mayberry spoke she held up for Miss Wingate's interest a pair of fine, dark blue sock. They were sitting on the porch in the late afternoon and the singer lady was again at work on a bit of wardrobe for the doll daughter of her friend Eliza.

"How does he manage such—such awful ones?" asked Miss Wingate with a laugh.

"Well, he can't never prove by me. He answer me with his kitchen slipped a small gourd into the top of the sock and drew a thread through her needle. "Sometimes I wish the time when I could turn him barefooted from May to November had never gone by. But a-widder's children dren back in years is a habit my mothers have got in common, I dream of him often at all ages, but it's mostly from six to eight I seem to watch him. When he were six, I took to leading myself by Tom and at eleven he made up my mind to give him up."

"Give him up?" asked Miss Wingate as she raised her eyes from her work. "I don't think you seem to have given him up to any serious extent, and she smiled as she turned away from the direction of the office window, from which came the whistled tune, jerkily and absordedly rendered.

"Oh, he don't belong to me no more," answered his mother in a placid tone of voice, as she rocked to and fro with her work. "I fought out all that fight when I took it

resolve. I just figured something like this, Pa Levell had been doctoring on Harpeth Hills for a lifetime and Doctor Mayberry had gave all his young man life to answering the call, a-carrying the grace of God as his main remedy, so now I felt like the time had come for a Levell and a Mayberry to go out and be something to the rest of the world, and Tom were the one to carry the flag. I seen that the call were on him since he helped me through a spell of May pips with ever two hundred little chickens before he were five years old, and he cut a knot out of the Deacon's roan horse by the direction of a book when he weren't but eleven, as saved its life. That kinder settled it with me and the Deacon both though we talked it back and forth for two more years. Then Deacon took to teaching of him regular and I set in to save all I could from the thin peeling of potatoes to wosser darings and patches than this. Would you think they could be any wosser?" And she smiled up over her glasses at the girl opposite her.

"Tell me about it," demanded the singer lady interestedly. "Who did you send him to school first?"

"Right down here to the City. You see Doctor Mayberry left me this home, fifty acres and a small life insurance, so they was a little something to inch and pinch on. You can't save by trying to peel nothing, but the smallest potatoes have got to be in skin, and I peeled close them days. Tom did his part too, and he run the plow deep and straight when he wasn't much taller than the handles. I had done talked it over with him and asked him would he, and he looked right in my eyes in his dependable way and said yes he would. That finished it and he wasn't but eleven; but I don't want to brag on him to you. If you listen to mothers' talk, the world are full of bees and none-suches." Again Miss Wingate received the smile from over Mother Mayberry's glasses and this time it was tinged with a whimsical pride.

"Please, Mrs. Mayberry, tell me about it; you know I want to hear," begged the girl, and she moved her chair nearer to Mother's and picked up the mat of the blue sock off her knee. "How old was he when he went to college?"

(To be concluded next week)

The Upward Look

Our Hearts are Gardens

Keep thy heart with all diligence; for out of it are the issues of life.—Proverbs, 4, 2, 3.

For the law of the Spirit of life in Christ Jesus hath made me free from the law of sin and death.—Romans 8, 2.

How low our hearts are to gardens! We all have been surprised to

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find how quickly our gardens lose their beauty and become unsightly when we neglect them but for a short period. Ugly weeds spring up astonishing in number and variety. The sweet little flowers that we took so much delight in are crowded and overcome by the ugly burdock or thistle. Even the larger plants suffer from the encroachments of their evil neighbors and all the flowers show withered bloom and leaves unpicked, unsightly growth and lack of proper nourishment and care.

This great law of "degeneration" is ceaselessly at work. It is striving with untiring persistence and awful power to drag down and destroy all that is best, not only in nature but in the spiritual world as well. The careful housewife cleans her house to-day. It is again untidy on the morrow. The thrifty farmer cultivates his farm with infinite pains. It soon is seeded with weeds as soon as the Evil One himself. The philanthropist aids the drunkard to-day. Sin drags him down on the morrow.

These same forces are at work in our lives. If we cease for but a short season in our struggle against evil we soon are amazed at the weeds that have sprung up in our hearts. Pride has sunk its roots deeper selfishness has crowded out the love of others and even our love for God, love of ease has produced the weed of slothfulness; love of praise has fertilized the weed of vanity, our appetites have grown into monsters that threaten the flower of self control,—for fear has developed into hopelessness, lack of faith into despair. And the unequal struggle goes on. May we not be pardoned if we sometimes feel that our efforts are useless and that the combat is greater than we can bear?

Well is it for us when we reach that conclusion. Then and then only are we enabled to discover that other great law, the law of God, the law of "regeneration." Each like great magnets, is drawing us in opposite directions: one down into the depths of sin and misery, the other up into the realm of peace and joy and hope. Within each of us lies the power to deaden ourselves to which ever magnet we choose. When we follow after the things of this world the magnet of evil commences to play in our lives and to drag us down, slowly it may be, but none the less surely. As we centre the letter things and earnestly seek them the magnet of all that is good, God Himself, draws us upward and strengthens and helps us. The direction in which we are moving is determined by ourselves.

And this that constitutes the joy of the Christian. He knows that the power for good as furnished by God, is greater than the influence for evil, as exercised by Satan. He knows also that his only hope for safety lies in prayer and the study of God's word; that as soon as he neglects these, he commences to slip back and the weeds of sin to spring up in his heart.

So long as the battle, so fierce the conflict, it is necessary that we shall be ceaselessly on our guard. A few days, even hours of carelessness are all that is needed to enable the forces of evil to gain another hold upon us. Paul realized this; none better. He spoke from the depths of his own experience when he said: Put on the whole armor of God, that ye may be able to stand against the wiles of the devil. . . . Praying always with all prayer and supplication in the Spirit and watching thereunto with all perseverance and supplication for all saints." (Ephesians 6, 11).—I.H.N.

Renew your subscription now.

Thinks Competition Good

We have a very modern and convenient farm house. It is situated on a dry hill and therefore has good drainage. It is Lrick 40 x 41 and has frame summer kitchen and woodshed at back.

As regards equipments it is all heated with a wood furnace, except the kitchen which is heated by a coal range. We have hard and soft water in wash room off kitchen with a good sewer connection. We intend putting in a hot water system, but have not done it yet. The bath room is fitted with porcelain bath tub and

with cold water connection.

We have a long distance telephone connection with house. For lighting we use coal oil. I might say we have a new patented lamp which burns coal oil and creates a gas from the coal oil which it also burns. It gives more light than any six ordinary coal oil lamps and does not burn any more oil than one. I think it is what every farm house should have that does not use natural gas.

I think a good farms' competition is a splendid thing as it makes one take more interest in their home and make many improvements.—Mrs. W. N. Bowley, Middlesex Co., Ont.

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"Expect to get the prize for the best butter, this year?"

"Of course I do.

I have the best cows in the country—and here's my Windsor Butter Salt.

You can't beat that combination.

You know, I have won first prize for the best butter ever since I began to use Windsor Butter Salt"

"Hope you win"

"Thank you, so do I"



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Our new "CHAMPION" is the champion of all washing machines. Speed, quickest hand washer ever made. Write us if your dealer does not have them.

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Arranging the Washstand

Illustration No. 1 shows a stand of simple construction for the corner of a room. Two semi-circular pieces of wood form the top and the lower shelf through which three poles are run, one at each side and one at the back, constituting the frame work of this stand. The poles are carried up above the table top to a height of two feet and two hoops carried around from post to post.

The drapery is filled on to these hoops for a splasher. Drapery is tacked tightly around the back of the stand from top to lower shelf and a curtain of the same hangs in front from a light brass rod. The posts are finished with brass or wooden knobs. No exact dimensions are given for these stands as there is usually a diversity in individual needs.

Illustration No. 2 shows a design which may be made of a packing case of proper size set up on short legs and draped as indicated. Sliding curtains are also used in this one. A light framework is constructed at the top. In this holes are bored at equal distances and a small rope



Illustration 2.—Convenient for any Position

is drawn through them. This washstand top is draped by running the material in and out around the ropes.

In illustration No. 3 is shown a bathroom corner and window. The feature of this is the attachment of two mirrors to the window frame; these both swing forward on hinges, and when not in use are pushed back against the wall. A corner shelf for medicines, comb and brush, and shaving materials, is fastened to the wall above the set bowl. This is quite simple in construction. It has a curtain which protects its contents from dust.

To clean painted walls, make a thin paste of baking soda in a dish, using cold water. Dip a moist sponge or

cloth in this and apply to painted walls. Wash off with warm, thin, soap suds, and dry with a clean cloth. This is an excellent method, as it leaves no streaks, and the walls will look like new.



Illustration 1.—A Good Corner Arrangement

My Best

Once more, once more a day has come and gone,
And night again has dropped her curtain dark;
And soon upon sleep's sea I'll launch my bark,
Thereon to sail in silence till the morn.
Throughout the day just dead I've done my best
In each and ev'ry task I had to do,
So now to-night when my day's work is through
I lie me down to sweet and peaceful rest.
I know not whether on the topmost cast
Of that wave named "Success" at last I'll sail,
I know not whether 'neath that wave I'll sink;
But this I know; I know that I'll be blest.

For working with the thought that, win or fail,
I'll do my best whate'er the world may think!—Stewart Everett Rowe.



The Duck's Adventure

This is a story for the little ones, but you can all listen if you like. There was a great farmyard "Sunnyside" with cows and pigs, cocks and hens, geese and great fat turkeys, some lovely speckled guinea fowl, and little ducks and big ducks. It was a grand place for them to live at—plenty to eat and plenty of space to walk about in. What did it matter if sometimes a pair of fowls or a big turkey went away and did not come back?—the younger ones were growing up, and soon the old ones were forgotten. It caused far more commotion when Mr. Fox put his nose over the wall, and laughed at the fright he gave them.

There was a family of ducks that lived and grew fat and had a very happy time. Mr. and Mrs. Duck took great care of their children, and they had a large family to bring up; but somehow, when they began to grow up, one or two of them were discontented, and wanted to go away to travel. Their father often said:

You may travel all the world o'er if you please,

But you never will find such ducklings as these.

He was very proud of his family. Sometimes he told them he had travelled in his younger days, but this was the most comfortable farmyard he was ever in.

One unlucky day a magpie flew down, and became very friendly with Master Jim Duck, and silly Jim picked out the best bits to give the magpie. "I wonder," said he, "that such a fine bird as you are can be content to reside in such a circumscribed environment. You are such a handsome bird that it is a pity to stay here."

And so Jim Duck began to preen his feathers and think he was a very fine bird indeed. He even began to use long words that he did not know the meaning of himself, and he was very angry when the rest of the family laughed at him. Two of the smaller ducks were twins, and were very fond of each other, as twins often are. They were quite the beauties of the family. Dandy and Dolly were pure white, with just a few dark feathers on the neck and tail; the two little curled feathers on the end of Dolly's tail were his special pride.

One evening, after Jim had been talking to Mr. Magpie, he was stand-

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ing looking very cross, when the twins came along.

"What is the matter, Jim?" asked Dandy.

"I've made up my mind," said Jim looked quite fierce. "I shall start to-morrow and go and explore the world. I may get a lift in a conveyance."

"The likeliest lift I know," said wise Dolly, "is the farmer's cart when he goes to market, and no fowl ever comes back from that journey."

"It would be a great thing," Dandy slowly said, "to see a bit of the world outside, if—if we were sure of coming back. You would be lonely all by yourself, Jim." Jim thought so, too, but did not want to say that. He remarked thoughtfully, "The adventure would be most serious for small ducks," but Dolly broke in, "We are not too small, and we are growing bigger every day. I heard the farmer's wife say you would soon be big enough."

"Ay, big enough, indeed," cried



Illustration 3.—A Handy and Simple Bathroom Arrangement.—See page 18.

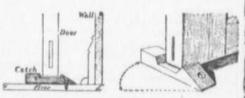
Jim, "for two of you to lie on a dish with green peas."

"If we thought that," said Dandy, "we would leave at once." So they talked it over and agreed to start early in the morning. Dolly suggested that it would be a good plan to take some food in a valise, and so the independence of an unfriendly world. The idea was approved of. They waited until the snails came out for their usual walk in the cool of the evening, so they laid in a good supply. Mr. Duck called them into the house, saying, "It is high time all ducks were in bed." So they hid the valise under some stones, and promised each other to keep their project dark.

(Concluded next week)

A Practical Door Stop

A home-made contrivance to hold the door open may be made from a small piece of wood cut like the illustration and screwed loosely to the floor where the edge of the door is opened, the stop can be brought around with the foot, so that the



notch is slipped under the door; then the ends prevent the door moving either way. This can be used only where the door swings back against the wall. It may be painted the color of the woodwork, and when not in use it fits back to the wall, thus making it scarcely noticeable to the casual observer.—Clara M. James, Simco Co., Ont.

THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request, to The Housewife Editor, Farm and Dairy, Peterboro, Ont.

BEAN VINEGAR.

To 2 qts molasses add 3 qts water. Put in a 2-gal jug and add 1 cup beans. Place the jug in a warm place and leave it there till it "works." If the vinegar is not strong enough add another cup of beans, which will make all the "mother" that will be needed for years. From time to time more molasses and water may be added.

GINGER SNAPS

One cupful of brown sugar, one cupful of butter, one egg, one cupful of molasses, one tablespoonful of ginger mixed with three cupfuls of pastry flour and one-half teaspoonful of soda. Put the dough in a shallow pan, cover with a floured cloth and then with a pan of the same size filled with ice. Put another pan containing ice underneath the first pan. When chilled, break off pieces of the dough and roll as quickly as possible and without handling. Bake at once. The chilling enables one to handle a softer dough.

FISH STOCK.

Take 2 lbs. of any kind of fresh fish, 1 head celery, 1 root of parsley, 1 or 2 blades of mace, 1 bay leaf, a few cloves and white peppercorns, salt to taste, and 2 qts. water. Cover and simmer gently about 2 hours, then strain off the liquor.

NUT MACAROONS

The ingredients for these are 1 lb sugar, 1 lb hazelnut kernels, 6 eggs and 6 bitter almonds. Beat the eggs to a froth, add the sugar, then the nuts. Put the dough in a buttered tin and bake in a brick oven. These macaroons should be soft in the centre.

SUCCOTASH

Use the contents of one can of corn, mix 1 qt. shelled lima beans, and boil until tender, and drain. Melt 2 tableps butter and pour on the corn and beans. Season with pepper and salt. Let simmer 10 minutes; pour in a cup of sweet corn; when hot serve.

PEANUT BUTTER.

Secure good, freshly roasted peanuts, that are neither over nor under-roasted, shell, remove the brown skins, and run through food chopper with the fine knife to a smooth paste with a little good butter, using no more butter than necessary, pack in small jars, cover, and store in a cool place.

CHEESE MACAROONS

Beat the whites of 8 eggs stiff, then add ½ lb each of powdered sugar and blanched and grated almonds, 4 oz citron, chopped fine, and the grated rind of 1 lemon. Drop on waxed paper and let dry in a very gentle oven. It will take almost half a day. They should be only slightly browned.

CREAM OF CHEESE SOUP

A cream of cheese soup is very delicate and nutritious and may well be placed among the emergency dishes. Scald 1 qt milk with 2 tableps each of onion and carrot cut in small pieces and a blade of mace. Melt ½ cup butter, add 2 cups deep flour, stir until well blended; then pour on gradually, while stirring constantly, the hot milk. Bring to the boiling point, and strain. Add ½ cup grated mild cheese, and stir until the cheese has melted. Season with salt and pepper, and add the yolks of 2 eggs beaten slightly. Serve with croutons.

Renew your subscription now.

A Good Laugh

"If we laughed more we should all be happier and healthier," writes a doctor in the Ladies' Home Journal. True, we are a busy, and a very practical people. And most of us probably find more in this life to bring the frown than the smile. But, nevertheless, it is a pity that we do not laugh more. For we all agree that a good laugh is the best medicine in the world. Physicians have said that no other feeling is so good to the entire human body as that of merriment. As a digestive, it is unexcelled; as a means of expanding the lungs, there is nothing better. It is best of all tonics to the spirits. It keeps the heart and face young. A good laugh makes us better friends with ourselves and everybody round us. It is to be regretted, then, that such a potent agency for our personal good is not more often used. It costs nothing. All other medicines are more or less expensive. "Why," says an old doctor long ago, "if people fully realized what it meant to themselves to laugh, and laughed as they should, 90 per cent. of the doctors would have to go out of business."

By laughing I do not mean the silly giggle indulged in by some women and so many girls. There is no outward mark which demonstrates the woman of shallow mind and low intellect as that of giggling. There is no sense in the giggle, no benefit to be derived from it. It makes a fool of the person herself, and renders everyone about her uncomfortable. But just as we are more fully aware of the small mind, the hearty laugh is the reflection of a healthful nature. What we want is more good laughers in the world—not more gigglers!

Laugh and the world laughs with you; Weep and you weep alone. For this old earth old earth must borrow its mirth; It has trouble enough of its own.

Sing and the hills will echo it; Sigh and it's lost on the air; For they want full measure of all your pleasure, But nobody wants your care.

Feast, and your halls are crowded; Fast and they pass you by; Succeed and give, and they let you live; Fail and they let you die.

Sweet Peas

Sweet peas never grow to a height sufficient to answer the purpose of a veranda screen. But they can be made extremely effective by using them in combination with such vines as the clematis. Plant them in front of these vines, and let the latter serve as a background against which they can display their charming flowers with fine effect.—Elen E. Rexford.

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The Sewing Room

Patterns 10 cents each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist measure for dresses. Send all orders to the Pattern Department.

TUCKED BLOUSE FOR MISSES AND SMALL WOMEN, 6585

The blouse that gives a chemisette effect is pretty, smart and always dainty and becoming. This one is designed for small women and for young girls. It can be utilized both for the entire dress and for the separate blouse.

Material required for a girl 15 yrs. is 3/8 yds. 34 or 37 in. wide, 3 yds. 35 or 1X and waist measure 14, 15 of all over lace. The pattern is cut for misses and young girls and will be mailed for 10 cts.

SIX GORED SKIRT, 6545

The skirt with the box-plait at the front and one at the back is smart and very favorite. This model can be finished with or without the strap on the back gore. The pocket in the right gore is much and is unquestionably convenient as well as smart, but the skirt can be made without if liked better.

Material required for medium size is 5/8 yds. 24 or 27 in. wide, 5 yds. 44 or 2 1/2 yds. The pattern 6545 is cut in sizes for a 22, 24, 26, 28 and 30 in. waist measure.

COMBINATION CORSET COVER AND CLOSED DRAWERS, 6673

Combination undergarments are much in demand just now. They do away with all bulk at the waist and over the hips. This one is shapely and dainty, and altogether so attractive as well as practical. It can be closed at either the front or the back.

Material required for medium size is 2 1/2 yds. 44, with 8 yds. of insertion, 8 yds. of edging and 2 1/2 yds. of beading to trim as illustrated. The pattern is for a 34, 36, 38, 40, 42 and 44 in. bust.

GIRL'S DRESS WITH BOX PLAITS, 6681

Applied back box plaits always make attractive trimming. Here is a frock on which they are used to advantage. The short sleeves are cut in one with the body portion and the frock is altogether as most attractive one and quite simple to make.

For a girl of 12 yrs. will be required 5/8 yds. of material 24 or 27 in. wide, 2 1/2 yds. 27 or 44 in. wide with 1 1/2 yds. of velvet, 1 1/2 yds. of all-weather lace. The pattern is cut for girls of 10, 12 and 14 yrs.

Always thread needle before breaking thread from pool and the thread will not tangle. This is essential in making point lace.

OUR FARMERS' CLUB

Contributions Invited.

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KING'S CO., F.E.I.

CARDIGAN BRIDGE, Jan. 6.—It has rained steadily for the past week. The roads are impassable. A few of the farmers have got their winter firewood home. The majority have not. Potatoes are high and scarce, retailing at from 55c to 60c.

a bushel. Pork is 8c a lb., dressed. Horses are hard to buy and bring fancy prices. Over 500 carcasses of mutton were shipped from here this fall to Ontario and Haiti fax—H. P.

NOVA SCOTIA

ANTIGNONISH CO., N. S.

ANTIGNONISH CO., Jan. 9.—It has been very mild with lots of rain this week. Farmers are busy piling and cutting their wood ready for snow when it comes. Beef is scarce and high in price. Pork is 7 1/2c to 8 1/2c dressed; butter, 22c to 25c; eggs, 28c.—Tom Brown

It Works While They Work

If horses go lame, you don't have to lay them off to cure them. Kendall's Spavin Cure works while they work—and cures them while they earn their keep. For Spavin, Curb, Ringbone, Splint, Sprain, Swollen Joints, Lameness

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"Two years ago, I bought a colt that was badly spavined, and completely cured him with only two bottles of your Spavin Cure." Worked him steady all the time and sold him last winter for a top price."

Howard Brock,

Also famous as the standard family liniment \$1. a bottle—8 for \$5. Ask your dealer for free copy of our book, "A Treatise On The Horse," or write us.

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This is the lock With the double-grip

You've heard a great deal about the Leader double-grip lock during the past two years. You'll hear even more about it this year, for its

fame is spreading

throughout the land. Because of this wonderful lock, the demand for Leader fence is rapidly increasing. We advise you to order at an early date.

Look at the Leader lock and you'll agree that nothing more simple in a fence lock has been devised. That's the beauty of it. There are no wonderful wraps, no fancy twists, to weaken the wire. But the ends do curve in such a manner that the lock

practically interlocks

and produces the now famous double-grip. It's impossible to spring the ends of the Leader lock. And the vice-like grip of the Leader lock never relaxes. It's always doing its duty.

The Leader fence is built entirely of No. 9 hard steel wire. The galvanizing is very heavy and very smooth.

No better wire

was ever put into a fence, for the largest mills in the world make this wire to specifications we have proved are correct for Canadian requirements. Leader fence is a match for Canadian weather. From zero weather to scorching summer.

In almost every locality, we have competent agents to show farmers the proper way to erect Leader fence. If there isn't a Leader agent in your locality, perhaps you would like to be appointed. We've a mighty good proposition for you, covering a complete line of farm

through snow and rain, it stands up stiff and erect.

defying rust,

withstanding wear. The Leader is your kind of fence—the kind you will be proud to erect—the kind you will mark down, in later years, as one of the best investments you ever made.



LEADER FENCE

and ornamental fence and gates, and will lend you every reasonable assistance to close orders. Ask for full particulars.

Send for Leader fence booklet, which describes and illustrates the Leader Fence and double-grip lock in a clear and convincing manner.

Frame & Hay Fence Co., Limited

STRATFORD, ONTARIO

ONTARIO

CARLETON CO., ONT.

BRITANNIA HAY, Jan. 9.—Ice harvesting is the order of the day. The ice is very good, being about 20 inches thick and free from slush. A large quantity of hay is being marketed at \$10 to \$12 a ton. Oats are 56c; wheat, 51c. Pork has taken a rise from \$9.50 to \$9.75. Poultry is very scarce; nearly all is marketed. Eggs are 50c to 55c a doz.—J. A. D.

HASTINGS CO., ONT.

MADOC, Jan. 7.—A free Short Course in live stock judging is to be held in Madoc on Jan. 26 and 27th. The object of the course is to give training in the judging of horses, dairy cattle and swine. With such men as Dr. H. G. Reed, of Georgetown, for judging horses; C. F. Bailey, B.S.A., Assistant Superintendent of Farmers' Institutes assisted by F. S. Mallory, B.S.A., of Frankford, for judging of dairy cattle and swine, there ought to be great interest taken on the part of farmers here in the Short Course. On Thursday evening, Jan. 26th, an illustrated lecture will be given by the local District Representative, A. D. McIntosh, of Stirling—C. B.

DURHAM CO., ONT.

BLACKSTOCK, Jan. 4.—December has given us real winter weather; plenty of snow to make splendid sleighing. Live stock generally are looking well; there does not seem to be as many cattle being fattened as have been some other winters. The markets at present are quiet owing to the holiday season. Prices for everything are fair. Clover seed threshing is pretty well over. The yield was small, hardly yielding 1 1/2 bushels an acre.—H. J. Ferguson.

WATERLOO CO., ONT.

WATERLOO, January 9.—For the past three weeks we have been gravelling a heavily travelled road leading to the sugar factory. The company gave a grant and the farmers were willing to put out teams at 20c and shovellers at 12 1/2c an hour. In this way we were improving the road at a small cost. The cattle and all live stock made me time saved in the busy season.—C. H. S.

BRITISH COLUMBIA.

NEW WESTMINSTER DIST., B.C.

CHILLIWACK, Jan. 8.—We're having an open winter; no snow, frost or in fact cold weather. The grass is growing in the roses and other flowers are in full bloom outside. The cattle and all live stock are looking well as they can get a fair amount of feed in the meadows.—J. C.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of The Canadian Holstein-Friesian Breeders' Association. We are having articles of interest in this issue. Readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

BELLEVILLE HOLSTEIN BREEDERS

Association met on Thursday, Jan. 12, and organized a local District Holstein Club. Mr. B. Mallory, Belleville, a veteran Holstein breeder, occupied the chair temporarily, while A. D. McIntosh, District Representative, at Stirling acted as secretary. After a discussion of the objects before the meeting by J. Caskey, Madoc; A. D. Foster, Bloomfield; A. P. McVannel, Picton; G. A. Brethen, Norwood; James Anderson, Mountain View, and others, it was decided on motion that a Holstein Breeders' Club be formed. After further discussion it was decided in favor of the name "Belleville District Holstein Breeders' Club," the motion for this name being made by George M. Sharpe, Stirling, seconded by George W. Anderson, Rossmore.

The officers elected were: B. Mallory, Belleville, hon. pres.; A. D. Foster, pres.; G. A. Brethen, vice-pres.; F. B. Mallory, Frankford, sec.-treas. Directors: J. A. Caskey, G. W. Anderson, E. Terrill, Wooler; W. R. Wolf, Hillier; B. H. Leavens, Bloomfield.

On motion of F. R. Mallory, seconded by H. Hagerman, Mowas, A. P. McVannel, Picton; H. C. Duff, Perth; R. S. Duncan, Port Hope; and A. D. McIntosh, Stirling, the four district representatives of the counties to which the club members belong, were made honorary members. After some discussion on the question of the annual fee and the qualifications for membership, it was decided that the fee be \$1.00 per annum, and that any person having one or more female, registered, pure bred Holstein animals, be eligible for membership. The president on calling for membership fees was greeted with a rush towards the secretary-treasurer who, in a few minutes, recorded a paid-up membership of 32.

The thanks of the Club were tendered Messrs. McVannel and McIntosh for their assistance in the formation of the Club. The executive met after the regular meeting adjourned for discussion of important matters. Another meeting of the executive is to be held on Feb. 1, on the evening of which day a banquet will be held and addresses given by prominent men in Holstein circles.

The following are the chartered members of the Belleville District Holstein Breeders' Club: J. M. Brumby, Bloomfield; S. J. Foster, Bloomfield; E. Terrill, Wooler; J. A. Caskey, Madoc; G. A. Brethen, Norwood; B. H. Leavens, Bloomfield; E. M. Bull, Bloomfield; E. Mallory, Frankford; I. Manley Scott, Cherry Valley; Tubert MacDonald, Bloomfield; R. G. W. Trenton; A. D. Foster, Bloomfield; F. R. Mallory, Frankford; W. Embury, Corbyville; C. A. Kingston, Campbellford; L. Tucker, Belleville; G. W. Anderson, Rossmore; Fred Hillier, Hillier; M. E. Maybee, Trenton; James B. Anderson, Mountain View; S. W. Lloyd, Belleville; D. MacDonald, Trenton; B. E. Hagerman, Rossmore; W. J. Gerow, Bloomfield; Walter Adams, Wooler; F. G. Zufelt, Concession; W. R. Wolf, Hillier; George M. Sharpe, Stirling; Charles T. M. Bell, Rossmore; Wm. Pollock, Wellman's Corners; G. W. Countryman, Tweed; Philip Birkley, Belleville.

The annual meeting of the Canadian Holstein Breeders' Association, will be held in Toronto, Wednesday, Feb. 8th.

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MARKET REVIEW AND FORECAST

Toronto, Monday, Jan. 16 - The eyes of the farmers are naturally enough turned to the papers at present in order to know how the negotiations with Washington are working out in regard to freer trade relations between Canada and the United States. That the proposals made by the U. S. Government are not as the manufacturers is seen by the large department that has just waited on the Ottawa Government regarding any action being taken having for its purpose the furtherance of such negotiations. Latest measures point to a moderate measure of reciprocity being established in certain articles, in some of which the farmers will probably be more or less interested. At the present writing nothing is known definitely of the nature of the articles which may be placed on the free lists of both countries. Some apprehension has been felt lately as to the general stability of the business world, but we have the authority of Mr. J. P. Morgan to the effect that "there is nothing the matter with the business world, and the public must be made to understand it at once."

Business is just beginning to all appearances serenely in Canada.

Call money in Toronto rules at 5 1/2 to 6 per cent.

WHEAT

There has been a sharp upward rise in wheat, and dealers are correspondingly thankful. In Chicago May wheat at last week's sale sold for 107 1/2, the corresponding period last year it sold for \$113.50. There is still ample room for improvement from that point of view. From present appearances, the outlook is distinctly favorable for a good crop in Argentina and in Russia.

On the Ontario wheat market is very strong. No. 1, Northern, is quoted by local dealers at \$1.08 to \$1.04; at lake ports: No. 2, \$1.02, and No. 3, \$1.00. Corresponding lake ports. Ontario winter wheat, No. 2, \$0.85 outside.

On the farmers' market wheat is selling at 78c and goose wheat at 76c to 77c a bushel.

COARSE GRAINS

Quotations for the coarse grains have received no impetus from the wheat market with which they are apt to sometimes act in sympathy. Prices are steady and local dealers quote as follows: Canada western oats, No. 2, 39c; No. 3, 37c, at lake ports for immediate shipment. Ontario white oats, No. 2, 35c to 34c outside; No. 3, 32c to 32c outside; 54c a bushel on track, Toronto. American yellow corn, No. 3, 53c to 53c on track, Toronto; feed barley, 48c to 49c; rye, 61c to 62c; buckwheat, 47c to 48c a bushel at points of shipment.

On the farmers' market grains are selling at the following prices: Oats, 38c; peas, 75c to 76c; barley, 47c to 48c; rye, 58c to 60c; and buckwheat, 46c to 50c a bushel.

Montreal wholesale prices are as follows: Canada western oats, 40c to 40 1/2c in store; No. 2, 39c to 39 1/2c; No. 3, 37c to 37 1/2c; American yellow corn, 56 1/2c to 57c on track, Toronto; feed barley, 48c to 49c; rye, 59c to 60c; buckwheat, 52c a bushel in store.

POTATOES AND BEANS

Potatoes are gradually getting dearer, latest local wholesale quotations running at 35c to 81 a bag, and 75c to 80c a bag in a jobbing way.

Beans are quoted at \$1.95 to 82 a bushel for three pound pickers.

On the farmers' market, potatoes are selling at 95c to 81 a bag.

Montreal dealers quote potatoes at 80c to 85c a bag in a jobbing way and beans at \$1.70 to \$1.75 a bushel for three pound pickers.

EGGS AND POULTRY

There is a large amount of eggs on the market, and prices are consequently declining; strictly new laid eggs are quoted at 35c to 40c; and cold storage stock at 27c to 28c a dozen.

On the farmers' market, prices steady trade on their market with poultry ruling at 45c to 50c a dozen for choice quality.

Wholesale quotations for poultry are as follows: Chickens, 10c to 12c; fowls, 10c to 11c; turkeys, 17c to 20c; ducks, 15c to 16c, and geese, 13c to 14c; live weight from one cent to two cents less a lb.

15c; turkeys, 18c to 25c; ducks, 15c to 17c, and geese, 15c to 17c a lb. Montreal dealers quote as follows: New laid eggs, 45c to 46c a dozen; selects, 25c to 30c, and extra, 20c to 25c a dozen. The demand is active and prices are very firm.

On the farmers' market has been dull during the week. Prices are: Chickens, 13c to 15c; fowls, 11c to 12c; turkeys, 18c to 19c; geese, 12c to 13c and ducks, 16c to 17c a lb.

DAIRY PRODUCE

Trade is very steady and prices firm. Local dealers quote, choice creamery prints, 28c to 30c; dairy prints, 25c to 26c; separator prints, 24c to 25c; and ordinary quality, 18c to 19c a lb.

On the farmers' market choice dairy butter is selling at 25c to 30c a lb. Local quotations for cheese are as follows: Large cheese, 12 1/2c a lb; twins, 12 1/2c a lb.

Montreal dealers quote the following quotations for butter: Choice creamery, 25c to 25 1/2c a lb; second grade, 23 1/2c to 24c; western dairy, 18c to 22c a lb. Cheese rules firmly at the following prices: Western colored cheese, 12c to 12 1/2c; eastern, 11 1/2c to 11 3/4c a lb.

HAY AND STRAW

Prices are unchanged. There is a steady trade. Local quotations are: Choice timothy, \$11.50 to \$12; second grades and mixed hay, \$10.00 to \$10.50; \$11 on track, Toronto; straw, \$6.50 to \$7 on track, Toronto.

Trade is very dull in Montreal as dealers are not inclined to buy even what meagre lots are coming in from the farmers—prices are unchanged from the decline noted last week.

Quotations in Montreal are: No. 1 timothy, \$11.50 to \$12; No. 2, \$10 to \$10.50; clover and clover mixed, \$6.50 to \$7 a ton.

MILL FEEDS

The demand is steady and prices remain unchanged on the local market. Dealers quote Manitoba bran, \$19 a ton; shorts, \$24 a ton; middlings, \$25 to \$26 a ton; \$20 on track, Toronto; shorts, \$22 a ton, on track, Toronto.

Prices in Montreal are nominal. Manitoba bran, \$19 to \$20 a ton; shorts, \$24 to \$25 a ton; middlings, \$22 to \$23 a ton, in bags; Ontario bran, \$19 to \$20 a ton and middlings, \$22 to \$23 a ton in bags.

SEEDS

Quotations for seeds in Toronto are as follows: No. 1, alsike, \$7 to \$7.50 a bushel; No. 2, \$6.50 to \$6.75 a bushel; No. 3, \$5 to \$5.50 a bushel; \$10.50 red clover, \$7 to \$7.25; No. 2, \$6 to \$6.75 a bushel.

Montreal prices, for seeds are unchanged and are as follows: Alsike, \$6.50 to \$8; red clover, \$7.50 to \$9 a bushel, according to quality.

WOOL

Trade is dull. Local quotations are: Washed fleeces, 13c to 22c a lb. unwashed fleeces, 13c to 14c, and rejects, 10c a lb.

Montreal prices are: washed fleeces, 25c to 30c; unwashed fleeces, 15c to 18c a lb.

SHEEP

There has been no change in prices for hides during the past week. The supply is fairly steady. Prices rule as follows: No. 1, \$1.00 to \$1.10; No. 2, \$0.75 to \$0.85; No. 3, \$0.65 to \$0.75 a bushel.

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range of prices: Heavy draught horses, \$275 to \$340; medium, \$250 to \$280; serviceably sound horses, \$60 to \$90 each.

LIVE STOCK

Last week was a very lively one on the Toronto cattle markets, as notwithstanding a very large influx of cattle from different points of the compass the demand was larger than the supply and prices in consequence received a boost that brought to the hearts of the vendors. An active demand from Montreal buyers came appreciably to the buoyancy of the market. Beef cattle and lambs were most in demand and fetched desirable prices, but there was a general activity in all grades. Prime butcher cattle sold as high as 6c a lb; lambs at 6 1/2 to 6 3/4c.

Milk cows and springers were also well sought after. Hogs have gone up again in price and are now considerably higher than last week's quotations. Quotations by local dealers have been as follows: Choice export cattle—8 1/2 to 8 3/4c; medium, \$5.50 to \$5.75; ordinary quality, \$4.50 to \$5.25.

Choice butcher cattle—8 1/2 to 8 3/4c; medium, \$5 to \$5.60; ordinary quality, \$4 to \$4.75.

Feeders—85 to 85.50. Stockers—\$4.25 to 85. Canners—\$2.50 to \$2.75.

Milk cows—Choice, \$70 to \$80; springers and cows of ordinary quality, \$40 to \$60; calves, \$4 to \$8.

Sheep—Ewes, \$10 to \$14.75; bucks, \$5 to \$4; lambs, \$6 to \$8.50.

Hogs—Fog, \$7.15 a cwt.; fed and watered, \$7.40 a cwt.

MONTREAL HOG MARKET

Montreal, Saturday, Jan. 14.—The light receipts of live hogs in Montreal is responsible for the further advance in prices this week, which have touched \$9 a cwt. for selected lots weighed off cars, a large number of sales having been made at this price. A further advance is looked for next week if the demand is maintained and an increased supply is not forthcoming.

Dressed hogs have also advanced in the face of the small supply and the general asking price today for fresh killed abattoir stock is \$11 a cwt., although sales have been made at \$10 1/2 a cwt. Country dressed is quoted at \$9.50 to \$10 a cwt.

THICK, SWOLLEN GLANDS that make a horse Whoop, Hoar, have Thick Wind, or Hobbles—can be cured with



ABSORBINE or any Bunch or Swelling, No matter how long it has been on the horse, it will cure it. Mr. Robert Jones, Sr., Mamora, Ont., writes April 8, 1907: "I had a valuable horse with a big leg, and used one bottle of ABSORBINE, and it cured him completely."

W. F. YOUNG, P.O.F., 123 TEMPLE ST., SPRINGFIELD, MASS

LYMANS LTD., Montreal, Canadian Agents

EXPORT BUTTER AND CHEESE

Montreal, Saturday, Jan. 14.—Cheese in meeting with an active demand for export this week, enquiries coming from all parts of Great Britain, and a large number of sales have been made at prices ranging from 11 1/2c to 12c a lb, according to the quality of the goods offered. Early season cheese that have been sold in solid storage, have sold at 11 1/2c to 11 3/4c, and the latter makes have been selling at 11 1/2c to 12c a lb, the top price being asked for colored cheese, the supply of which is now almost exhausted. Some of the local dealers are cleaned right out of stock, and the rest of what remains in store in Montreal is sold in the hands of a couple of the larger houses, who are very firm in their views and not inclined to sell freely even at present prices.

The shipments during the past two or three weeks have been steadily increasing and several large blocks of cheese, consisting of goods that have been held here for English account, have gone forward since the turn of the year, and the stocks in store at the end of the month will probably show a reduction of fifty per cent from the quantity estimated to have been held here at the beginning of the year.

The butter market shows a decided improvement this week, and the demand all around is very much better, several car loads having been shipped west, and the local trade being much more brisk than it has been since before the holidays. Prices are steady, with a slight upward tendency, finest fresh being quoted at 24c to

STADACONA FARM OFFERINGS CONSIST OF THE IMPORTED Clydesdale Stallion, Gartley Edward -26125- Six years old next May. A horse of substance and quality. Two of his get: STADACONA PRINCE-18422 Foaled June 23rd, 1908 STADACONA EDWARD, a foal of 1910 All this stock must be disposed of as the Farm is sold. Write or Come to Stadacona Farm GUS. LANGELIER CAP ROUGE, QUEBEC. Proprietor

BREEDER'S 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 25 insertions during twelve months. SUNNYSIDE HOLSTEINS.—Young stock all ages.—J. M. Montie & Son, Stanstead, Quebec. CLYDESDALE HORSES, SHORTHORN CATTLE—Large selection of best stock. Prices reasonable.—S. M. Richardson, breeder and importer, Columbus, Ont. ORMSBY GRANGE STOCK FARM, ORMS. TOWN, P. QUEBEC.—Importation and breeding of the best class Ormsbys especially. Special importations will be made. Duncan McElchman. CLYDESDALES—Many by that great sire, Acme, (Imp.) Write us, R. M. Holby, Manchester, P.O., and G.T.E. Station; Urrice, C.P.R. Long Distance Phone. CLYDE HORSES, SHORTHORN CATTLE.—Young stock all times.—S. J. Redmond, Peterboro, Ont. YORKSHIRE AND TAMWORTH HOGS.—Plymouth Rock and Orington fowl.—A. Dyer, 434 "Paris" Ave., Toronto. HAMPSHIRE PIGS.—Canada's champion herd. Boar herd headers. Sows three months and up.—Hastings Bros. Cross-bred. SPRINGBROOK HOLSTEINS AND TAMWORTH'S.—High class stock, choice breeding. Imported from the best two-year-old sires, fresh and in calf. Young bulls. Five Tamworth boars from Imp. stock, ready to ship.—A. C. Ballman, Brantford, Ont.

GOSSIP

Farm and Dairy readers will notice by ad. in another column that Stadacona of ferings are becoming fewer. Mr. Langelier, having sold the Clydesdale stallion stadacona Prince Thomas—11031—and all the young Yorkshire pigs. He still offers the six year old Clydesdale stallion Garter Edward—26125—(Imp.) This is a horse of splendid make up, compact in build, and has a good set of limbs and feet. He has been a successful prize winner wherever exhibited, and has proved to be a grand stock getter. Two of his get, Stadacona Prince and Stadacona Edward

are young horses that will improve the horse flesh of any community into which they go. As the proprietor, Mr. Langelier, Cap Rouge, Que., has sold his splendid farm to the Federal Government for experimental purposes, these horses must be sold at an early date.

MEETINGS OF LIVE STOCK ASSOCIATIONS

Annual meeting of the Canadian Holstein Breeders' Association, Toronto, Wednesday, Feb. 8.
Annual meeting of the Ontario Large Yorkshire Swine Breeders' Association,

Wednesday, Feb. 8, 9.30 a.m., Walker House.

Directors' meeting of the Dominion Swine Breeders' Association, Tuesday, Feb. 7, 2 p.m., Walker House.

Annual meeting of the Dominion Cattle Breeders' Association, Tuesday, Feb. 7, 7.30 p.m., Walker House.

Annual meeting of the Ontario Berkshire Breeders' Society, Wednesday, Feb. 8, 11 a.m., Walker House.

Annual meeting of the Dominion Swine Breeders' Association, Wednesday, Feb. 8, at 2 p.m., Temple Bldg., Toronto.

Directors' meeting of the Dominion Sheep

breeders' Association, Thursday, Feb. 8, 7.30 p.m., Walker House.

Annual meeting of the Dominion Sheep Breeders' Association, Friday, Feb. 10, 9.30 a.m., Temple Building.

Annual meeting of the Ontario Sheep Breeders' Association, Friday, Feb. 10, 1.30 p.m., Temple Building.

Annual meeting of the Canadian Shire Horse Association, Wednesday, Feb. 8, 10 a.m., King Edward Hotel, Toronto.

Annual meeting of the Ontario Horse Breeders' Association, 8 p.m., Friday, Feb. 3, Walker House, Toronto.

HA! HA! HA!

"Well, I'm blest! So this is one of those so-called metal roofing guarantees I've read about," laughs the Wise Man of Metal Town.

"It certainly is a good joke, but it doesn't really guarantee anything to anybody, and isn't legally binding. Ask your own lawyer and you'll find I'm right."

"Stripped of all its exceptions and provisions I don't see how anyone could be serious about it."

"I go by what I know has been done, not by what is promised. For instance, I know that 'Eastlake' Metallic shingles have been in use for twenty-five years right here in Toronto, where they're made, and that those same shingles are in perfect condition now."

"Just listen here a minute. I'm getting serious now. The Metallic Roofing Company began to make metallic shingles years before anyone else in Canada. They were made right when they were first made. The Metallic Roofing Company have been continually making new designs for ceilings and walls, fronts and cornices, but as for shingles they have never seen an improvement on the 'Eastlake' steel shingles which have been made, laid and proven for twenty-five years."

"I've noticed that most metal shingle manufacturers change their pattern so frequently that I'm led to believe they, themselves, haven't much confidence in their own goods. Yes, they even change the name to cover up some weakness in a previous product."

"TWO OTHER PERSONS' SAY-SO'S"

The Metallic Roofing Co., Limited, Toronto.

Dear Sirs:—"We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library and other public buildings in this town for 18 years. We have used very large quantities during the past 15 years, and they have always given first-class satisfaction, and have never required any repairs."

(Signed) MADDEN BROS., Tinmiths and Hardware Merchants.

The Metallic Roofing Co., Limited, Toronto.

Dear Sirs:—"I take great pleasure in testifying to the good qualities of your 'Eastlake' Shingles. We put your painted shingles on our Town Hall here in 1886—23 years ago, and although they have only been painted twice since that time they are in good condition yet. I consider the look on the 'Eastlake' the very best, and believe that a roof covered with the galvanneal 'Eastlake' will last for ever."

(Signed) THOS. LAWRENCE, Hardware Merchant.



"I'm prejudiced, you say? Of course I'm prejudiced, but it's a prejudice founded on years of active use of the metallic goods made by The Metallic Roofing Co. It's an old man's prejudice based on a long experience."

"Write for booklet which tells more about 'Eastlake' Metallic Shingles. They are sure proof against fire, lightning, rust or weather in all climates. They are the easiest and quickest to put in place and the most durable when laid. If you send the measurement of any roof an accurate estimate of cost will be sent free."

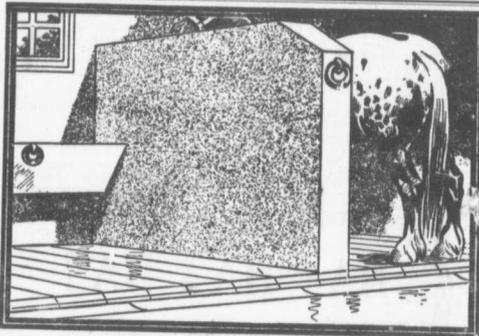
—The Philosopher of Metal Town.

The Metallic Roofing Co.

Limited

TORONTO and WINNIPEG

Agents wanted in some sections. Write for details, mentioning this paper.



Which of These Pictures Represents Your Stable ?

If your stable is of wood, you'll do well to tear down those old, decrepit and unsanitary stalls and mangers and build new ones of Concrete.

In fact, to be properly ventilated and sanitary the entire stable—inside and out—should be built of Concrete.

Because of the continual dampness which prevails in the stable, lumber soon rots away and requires almost constant patching and repairing, besides the expense of renewing it every few years.

Lumber, too, because of its absorbent nature, soon becomes impregnated with the odors and filth of the stable and forms a prolific breeding ground for disease germs of every kind. Then rats will infest a timber-built stable and another dangerous source of disease is developed.

To build your stable of Concrete is to have it as modern as it is possible to make it.

Concrete stables are cheaper than lumber, viewed from the standpoint of ultimate cost. They are germ-proof, free from vermin, durable, sanitary, fireproof, and are easily kept clean.

There is no insurance necessary on a Concrete stable. No agent could figure out the risk, because there is none. This assurance of security is more valuable than the saving of expense. There is little satisfaction in receiving a cheque from an insurance company to compensate you for loss. Concrete positively defies destruction.

The cost of a Concrete stable is less than you think and is more than made up by its lasting durability.

If you would know something of the possibilities of Concrete, fill out the coupon and send it to us. By return mail we will send you free a copy of our new illustrated book, "What the Farmer Can Do With Concrete." This book is just off the press and is

priced at 50c, but we intend to distribute them free for a while and charge up the expense to advertising.

"What the Farmer Can Do With Concrete" gives you complete instructions for the construction of almost everything you can think of in the way of farm utilities, such as stables, mangers, feeding troughs, and so forth.

There is nothing technical or hard to understand in this book. It is written in plain, simple language, easily understood by the layman. It tells you how to mix and use concrete, make the necessary preparations, forms, molds and the like, so that you can do much of this work yourself or have it done under your direction.

Sign and mail this Coupon now, because if there is any possible way of lessening the cost of farm construction and at the same time adding to its value and durability, you certainly ought to know about it.

Clip the Coupon, or use a Postal—mail it to us now and you will know promptly.

FREE—Our new illustrated book,

"What the Farmer Can Do With Concrete."

Tells you how to use Concrete in constructing :

Barns	Feeding Floors	Poultry Houses	Stalls
Cisterns	Gutters	Root Cellars	Steps
Dairies	Hens' Nests	Silos	Tanks
Dipping Tanks	Hitching Posts	Shelter Walls	Troughs
Foundations	Horse Blocks	Stables	Walks
Fence Posts	Houses	Stairs	Well Curbs
			Etc., etc., etc.

Canada Cement Co., Limited

71-80 National Bank Building, Montreal

You may send me a copy of "What the Farmer Can Do With Concrete."

Name

Address

