

Issued Each Week—Only One Dollar a Year

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# FARM AND DAIRY

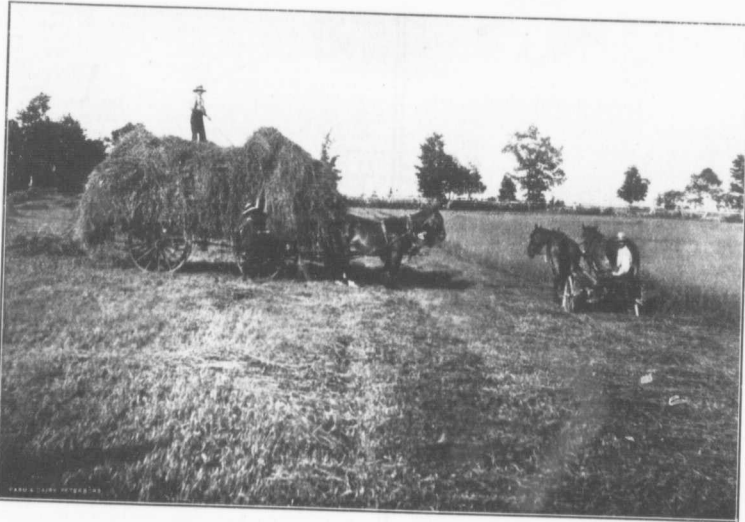
AND

## RURAL HOME

PETERBORO, ONT.

JULY 14,

1910.



HARD AT WORK WITH THE TIMOTHY HAY IN PETERBORO CO., ONT.

Timothy hay, if it be of good feeding quality, should be cut shortly after it comes into bloom. It may weigh more heavily if allowed to more fully mature, but any gain in this way will be at the sacrifice of quality. On high-priced land, less and less timothy is being grown each year, its place being taken by clover. The illustration shows Mr. Jas. A. Young, of Peterboro Co., Ont., as he was finishing his haying last summer.

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

## Excursions to the Nova Scotia Agricultural College

June excursions to the agricultural college and experimental farm which have for many years been a prominent feature of the work of the Ontario Agricultural College have been adopted at the Nova Scotia Agricultural College. They had several large excursions to the College in June, as many as 3,000 being present in one day.

Many improvements have been made around the college in the last few months. Large additions have been made to the buildings. A new implement shed and hog pen have been built to replace the ones burned last year. The crops are in fine shape. The new experimental plots, although not very extensive as yet, attracted much attention. The 60 head of cattle kept on the College farm were in splendid condition, and elicited much favorable comment from stock men of the province.

A feature of these excursions which was very much appreciated by the visitors was the demonstration of cattle and horses given on the campus in front of the college. The various breeds of beef and dairy cattle kept at the college were led out on to the campus and Professor Archibald gave a short talk, pointing out the desirable points in the conformation of both beef and dairy animals. Nova Scotia is sure to be a dairy province, and the excursionists had a splendid chance to find out what was desired in a good dairy animal. Last year the college dairy herd averaged over 10,000 lbs. of milk for each cow.

Between the various cattle classes, horses representing the draught, roadster, carriage, and heavy saddle classes were brought into the ring and a short talk given on each by Dr. J. Stanish, the college veterinarian. The draught class was represented by Flash Favorite, an imported Clydesdale stallion and champion at the Dominion Exhibition of 1906. Roadsters were represented by a splendid specimen, Achille, 2:15. Cliff Roadster, the hackney, is one of the finest carriage horses in Canada, and has exceptionally high action. Lucifer II, the thoroughbred, won many great stoopchases in England, and is the sire of many present day winners in the old land.

Not only are these excursions instructive to those who visit the farm for the day, but Professor Cumming and his staff expect they will have great influence in increasing the attendance at both the short and the long courses next winter.

## Eradicating Wild Oats

H. C. Clark, Halton Co., Ont.

Wild oats are harder and more vigorous than cultivated varieties of cereals, and are rather hard to eradicate once they get into the soil. They are apt to become troublesome on farms where the growing of grain is carried on extensively. The first point in the eradication of this weed is to be sure and sow pure, clean seed. Wild oats are the most prevalent impurity in western grown grain, and if western seed is used, care should be taken to make sure that there are no wild oats in the seed. In the eastern provinces, fields plowed with wild oats may be seeded to grass for five years. At the end of this time if the land is plowed, the wild oats will not be troublesome.

On grain fields surface cultivation after harvest will start germination of the seeds scattered during the harvest. Any method of cultivation or arrangement of crops that will induce the seeds in the soil to germinate and permit the destruction of the plants before they have produced seed will eventually exterminate wild oats.

A short crop rotation with clean cultivation of the hoed crop is the

best method of fighting with these and all other weed pests. On fields in which wild oats are very bad, grain should be cut green for soiling, in which case the wild oats will not have a chance to mature and drop their seeds. Seed is often allowed to ripen on the edges of fields and fence corners and thus the object of much faithful work is defeated.

## Quality in Bee Products

J. A. Arnold, Washington, D.C.

Above all it should be emphasized that the only way to make bee keeping a profitable business is to produce only a first-class article. We can not control what the bees bring to the hive to any great extent, but by proper manipulation we can get them to produce fancy combs, honey, or if extracted, honey is produced it can be carefully cared for and neatly packed to appeal to the fancy trade.

Too many bee keepers, in fact the majority, pay a little attention to making their goods attractive. They should recognize the fact that two good jars of honey, one in an ordinary fruit jar or tin can with a poorly printed label, and the other in a neat glass jar of artistic design with a pleasing, attractive label, the latter will bring double or more the extra cost of the better package. It is perhaps unfortunate but nevertheless a fact that honey sells largely on appearance, and a progressive bee keeper will appeal as strongly as possible to the eye of his customer.

**The Telephone.**—The value of the 'phone is shown in many ways. I recall the remarks of a subscriber to the Rural Phone, who had his barn burned a few weeks ago. He said, "Had it not been for the fact that I was able to notify my neighbors by 'phone, my loss would have been increased by \$100, for without their help I would have lost my stable and implements."—J. O. Laird, Kent Co., Ont.

**Cow Testing.**—The farmers of this district have taken up the idea of cow testing. As owner of the creamery and as a member of the Farmers' Club, I have offered to do the testing during our creamery season (from November). I have every reason to believe that by so doing our patrons will be encouraged to keep only the best paying cows, to weed out the poor ones and so bring the average profit up to a satisfactory basis. In the long run that means more and better business for myself.—S. R. Brill, Bruce Co., Ont.

**Sheaf Carriers.**—It is surprising that many people have not sheaf carrying attachments on their binders. It is a great advantage to have the sheaves placed in rows convenient for setting in shocks and in which use they are also most convenient for drawing in. The driver then has not to "shaw" and "gee" all over the field for a load. Where the bundle carrier has not been used the driver may drive as carefully as may be yet he will have the fellow who pitches on looking like a thunder cloud because he has to carry some shocks a few paces.—E. Terrill, Northumberland Co., Ont.

The staff at the Central Experimental Farm Ottawa has recently been strengthened by the addition of assistants in three departments. O. C. White, Brooklyn, Ont., will be assistant to the Agriculturist, Mr. J. H. Grisdale, Assistant Foreiculturist, Gordon T. Bunting, St. Catharines, and Assistant Cerealist, Harry Sirrett Carp, Ont.

Farm and Dairy is a good paper for any farmer to take if he would receive information.—Walter D. Dundon, Kent Co., Ont.

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Each Week

# FARM AND DAIRY

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## RURAL HOME

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Vol. XXIX,

FOR WEEK ENDING JULY 14, 1910.

No. 28

### A SUCCESSFUL DAIRYMAN DESCRIBES HIS METHODS

D. J. McClure, Peel Co., Ont.

**A Man Who Has Made a Success of Dairying Tells How He Did it.—Cream and Hogs the Profit Makers—Good Cows, Good Feeding, and Attention to Details the Secrets of Success.**

WHETHER or not you will derive a profit from feeding grain to dairy cows depends on whether or not you have cows that will respond at the pail for a little extra feed. Some cows will shrink in their milk and commence fattening if fed an extra amount of grain. This is because they are not of a dairy temperament. They have too much leaf or dual purpose blood in them. It takes a cow of decided dairy temperament to digest a strong feeding of grain and not divert it from milk to flesh production. This is one of the advantages that result from special dairy breeding.

If a man has well bred dairy cows that milk for only three to six months, he is short sighted if he does not give them a good grain ration. Prices of products are much higher in proportion than are the prices of grain. All that should concern us in feeding grain is the question, "Have I the kind of cows that will make the best of it?" When a bushel of oats, for instance, worth say 40 cts., is fed to a good cow it will produce three pounds of butter worth 90 cts. He would be a foolish man who would withhold the oats.

#### THE ONLY TRUE TEST.

The question arises: "Can you tell by the appearance of the animal whether or not she is a dairy cow?" The only sure way to find out is to weigh and test the milk for a year and so know what each cow will produce. In this way you can select your best cows and reject the poorest ones.

#### A 6,000-LB. STANDARD.

Our standard should be not less than 6,000 lbs. of milk, or 300 lbs. of butter a year for each cow. Our herd averaged 6,800 lbs. of milk last year and over 300 lbs. of butter fat. My cows have averaged me in money for the last seven years \$88 a cow. Last year they produced \$97. This was the amount received for cream shipped. It does not count what cream was used at home, or the skim milk for feeding hogs and calves, which would make the average over \$100 a cow.

#### VALUE OF DAIRY PAPERS.

I can attribute much of my success in dairying to reading dairy papers, and in always having good, efficient help, enabling us to carry on our work methodically. I have taken a dairy paper ever since I began the work. I would not think of doing without one, especially since I have found a friend in Farm and Dairy, which comes so brimful of helpful thoughts every week. One cannot work out all the ideas that are presented, yet it stimulates us to fresh effort every time. Though our buildings are not modern, they are

\* Mr. McClure was one of the prize-winners last year in Farm and Dairy's prize farms competition, and he has entered his farm again this year in the final competition that is being held to determine the best dairy farms in Ontario. This article is one of the essays that the rules of the competition required Mr. McClure to write.—Editor.

comfortable and as handsy as we can make them. The stables are kept clean and everything is done in an orderly manner. After all, it is the workmanship that counts in dairying, as in everything else.

#### OUR AVERAGE TOO LOW.

As I have stated already, our standard should be not less than 300 lbs. of Lutter a cow. No dairyman should be satisfied with anything less than this amount. It seems, however, that a majority of the farmers are satisfied with 150 lbs. of butter per cow, and some with less. The neighborhood of 150 lbs. This, at 30 cts. a lb. of the 150 and the 300 pound cow.

Necessity demands that if we are to get the greatest returns possible from dairying, we must engage in it on an intensive scale. We must give it our best thought and attention. Some of us

### Tell Your Neighbors

Perhaps some of your neighbors are not subscribers to Farm and Dairy. If not, they can become a subscriber for the balance of this year, or until January 1, 1911, for the small sum of 40 cts. No better way to get acquainted with the best, and most up-to-date farm and dairy paper in the Dominion. Balance of 1910 to NEW subscribers for 40 cts. Send to-day. Old subscribers who have not yet renewed their subscriptions are urged to send in renewals AT ONCE.

can remember, when we were kids, chasing two or three old, skiny cows around the straw stack Those cows gave a few pounds of milk a day for about six months in the year.

#### CREAM SOLD, NOT GRAIN.

All this has changed. To-day, we feed all the grain and convert it into cream, which is the finished product of the farm. Formerly it was the reverse; sell the grain and let the cows shift for themselves. In this part of the country we have our large stables filled with choice dairy cattle, which are a profit and pride to their owners.

What has dairying done for us? There is no better evidence of the results achieved than right on the farms where dairying is a specialty. Here we find substantial buildings, attractive homes and all the evidences of prosperity, which come from successful work. Financial gain is not the only profit to be derived from farm life. A business that gives interest and pleasure and makes life worth living is profitable.

#### PLEASURE AND PROFIT.

No other calling has such a variety of interest, so much spare time and gives such a sense of independence as farming. I am satisfied that,

since I began dairy farming nine years ago, I have saved more money in one year than I did in three at mixed farming. I have not had to work harder, for I have been able to afford to keep good help.

Sweet corn on our city trade and hogs are the profit makers for our farm. For nine years I have sent all my cream to the City Dairy, Toronto, and in all that time I have not had one can of sour cream. This is a record of which I feel somewhat proud.

#### THE DAIRY WORK MOST IMPORTANT.

We consider our dairy work the most important work of the farm. It gets first attention. We begin milking every evening at five o'clock, winter and summer, and get all work done for the day at six. We feed three times a day. The feeds are silage, some straw, clover hay, mangels, chopped oats and oil cake meal. I have sold enough grain in the last seven years to buy what bran and oil cake has been used.

#### DAIRYING MORE PROFITABLE.

When I began dairying, some of my neighbors thought it would not pay me and that I would soon give it up. Those very men are now in the same business themselves. They found that there was more profit in dairying than in mixed farming. I would suggest that all my fellow farmers, who are not satisfied with their present success, should begin and specialize. Develop a good dairy herd and subscribe for Farm and Dairy.

### Unjust Taxation

P. P. Farmer, York County, Ont.

The present system of taxation has a very disastrous effect upon the development of Ontario. This is evidenced by its effect upon rural conditions—rural population in Ontario has decreased in the past 10 years by 62,000. Why should such a depopulation occur? Simply because our system of taxation encourages the increase in the size of the farms and discourages the increase of improvements. It discourages the introduction of proper methods of farm management which would farm more intensively, add population per acre, and add to the income per hour of labor on the farm.

Under proper conditions of production, one-fifth of the acreage would produce the present value of farm produce. If this land were to lie adjacent it would mean a saving of four-fifths the cost of freight for your goods, a saving of four-fifths the railroad fares when travelling on business or pleasure, a saving of four-fifths the cost of express, of telephone and telegraph messages and of postal service. A similar saving in all costs of transportation and communication. Such is the tremendous economic waste, much of which would have been saved had taxation not been placed upon improvements. Ontario rural districts would have had more people and shorter distances between them. Remove this taxation on improvements and start to reclaim this waste.

Corn is a gross feeder and a rapid grower and wants what it requires without delay, nitrates more especially.—H. D. Matthew, Essex Co., Ont.

## Establishing a Dairy Herd\*

A. D. Foster, Prince Edward Co., Ont.

The foundation is a very important part of any building. It is true of a dairy herd. At the request of Farm and Dairy I shall herein outline my experience in establishing a dairy herd.



A. D. Foster

When selecting my foundation females, I endeavored to get cows that belonged to a good family, cows that were good individuals of that family. One might better put money into one good cow than into two poor ones.

After having decided to start a dairy herd, I went to the well-known Holstein breeders, Henry Steven & Son, at Larcena, N.Y. There I saw the great De Kol 2nd, the foundation cow of the De Kol family. She was an object lesson. It was easy to see that she was a great cow. I decided to get something well related to her. After looking over the stock of heifers coming two years old, I selected Helena DeKol's DeKol. She proved to be all I expected and more.

This cow freshened at two years, one month and six days old. She milked heavily from the start and at the end of a month, she had gotten up to 56 pounds a day. Mr. Steven, advised me to test her early. I thought, however, that I would get her to 60 pounds a day, but she got the scours and went down in her milk. However, she gave 362 21-32 pounds of milk, which produced 12 pounds, 12.8 ounces of butter, (80 per cent. fat), in seven days. This was considered a good record at that time.

Out of 63 heifers under two years and a half old that reported tests to the advanced registry, she was second for the amount of milk, and fifth for butter, winning one of the butter prizes given by the American Holstein Association.

The question may be asked, "Why did this heifer give such a good account of herself?" It is not probably due to the blood lines she carried? She was sired by De Kol 2nd's Butter Boy, undoubtedly the best son of De Kol 2nd. His sons have more and higher official record daughters than have the sons of any other bull. Her dam was a daughter of Helena Berk, sired by De Kol 2nd, Netherlands. This gives Helena De Kol's De Kol 85 per cent. of the blood of De Kol 2nd. Helena De Kol's De Kol has a daughter, Helena Pieterje, that produced the World Champion heifer, Butter Boy Helena Pieterje.

### HERD DESCENDED FROM ONE COW.

About three years ago I decided to have my herd all descendants of one cow, and that cow is Helena De Kol's De Kol. A plate of her is reproduced herewith. We have only two females that are not direct descendants of Helena, and I believe we are not making any mistake in this

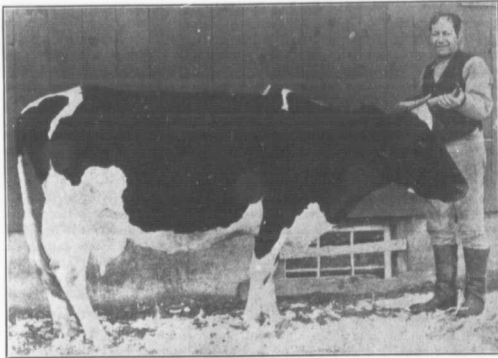
Mr. Foster was one of the prize winners in the dairy farms competition conducted last year by Farm and Dairy. His herd scored high. This article is one of the three essays that the rules of the competition required Mr. Foster to write.

matter. Her descendants are of uniform type and produce shapely udders.

In selecting a sire, I always choose a good individual, and one whose ancestry traces to large producing cows. I try if possible, and see his dam. I see if she had a good shapely udder, nice teats, not too large nor too short, and milks easily. I do not forget that the bull is half of the herd. I would give preference to an aged sire. If he has daughters milking, all the better. I can then see what they are likely to do. I do not allow the bull to serve too many cows, and I draw the line at one good service.

### MISTAKEN BY APPEARANCES.

I do not discard a heifer if she does not just suit me as an individual. I sold a heifer, Helena Pauline, at four months old because her hide was thick and harsh and her eye was not as plump as I liked to see. I thought she looked too beefy and coarse to make a good cow. She is now seven years old and has developed into a great cow. She changed hands last winter at something like \$500, and is now owned by Mr. S. J. Foster. She has been entered in the yearly Record of Performances test, and is likely to eclipse the famous De Kol Plus the champion Record of Performance cow of last year.



Helena De Kol's De Kol, 3901

This illustration shows the foundation cow in the herd of A. D. Foster, Prince Edward Co., Ont. There are only two females in Mr. Foster's herd, which are not direct descendants of Helena De Kol's De Kol. Read Mr. Foster's article on this page, in which he tells how he built up his uniform and high producing herd. His methods of breeding are worthy of careful study.

Helena Pauline gave nearly 400 pounds of milk more in April this year than De Kol Plus gave last year in the same month. Helena Pauline is a half sister to the world's champion heifer, Butter Boy Helena Pieterje, that gave as a two-year-old 555.9 pounds of milk and 22.208 pounds of butter in seven days. She dropped her second calf one year and 13 days from the time of her first calving and gave 91.6 pounds in one day and 622.1 pounds in seven days, and 2,520 pounds in 30 days. She produced 24.5 pounds butter in seven days and 95.34 pounds in 30 days. There are three sons of De Kol 2nd in this heifer's pedigree, and there is but one outcross, that of her dam, she being sired by Sir Pieterje Josephine Mechtild. Such breeding, if judiciously done, would not do harm. The De Kols have been inbred in every way, and yet they are among the best producers to be found.

One more point which I wish to mention, about the matter of founding a dairy herd, is that of the care of heifer calves. The dam should be dried off two months before the calf is dropped. With many Holstein cows, it takes a month to get them dry and one should commence three months before the calf is expected, in order to give the cow two months of rest. I always provide my heifer calves with food that will give

good growth and not fatten. I do not breed them until 20 months old.

## Hay Making by Machinery

Chas. Duffield, Wellington Co., Ont.

We have been successful in curing hay during the past 10 or 12 years through using the following method: As soon as the dew is off the grass, cut an amount which can be conveniently handled at one time. Follow with the tedder to loosen up and spread out the bunches gathered by the mower. If the crop is heavy clover, a very good plan is to run the tedder through it again in the afternoon to turn it over and give the sun a chance.

Next morning, as soon as the dew is off, if the weather looks fine, run the tedder through it again. About noon take the side-delivery rake and run it into light, fluffy windrows. If weather has been fine, the hay should now be in excellent shape to go into the barn.

### THE HAY LOADER A LABOR SAVER.

We use the Dain one-man hay loader. It is a wonderful labor saving device. Coiling the hay in some districts is common, but this method is fast dying out. The loader is making rapid progress owing to scarcity of labor and high wages.

Should the hay be caught by a sudden shower after you have raked it into windrows, pass the tedder down the windrow to lift it up and spread it in order to give the sun a chance to work on it again. If your hay is not too heavy it is a good plan to take the side-delivery rake and turn the windrows over as soon as the sun has dried the ground. This lightens the hay and gives the sun and wind a chance to work on it, and the hay will be in good condition again in a very short time.

Sometimes if the weather is catchy, we put our hay up in small coils. When the sun comes we throw them out in straight rows and take them up with the loader. We believe, however, in air curing hay with the side-rake and tedder, as it gives a much better quality of hay than the sun bleached hay put in coils.

## Essentials in Breeding Light Horses

J. P. Fox, Dundas Co., Ont.

Horsemen who have accomplished the most have been those who have had some definite purpose that they have kept constantly in mind. To be successful requires practical knowledge of the business coupled with great energy and push.

There never has been, and probably never will be, a time when any stallion or particular breed will attain any very prominent place unless the horse or breed actually has merit. If the horse has merit a market for him and his stock can be worked up if the owner keeps at it persistently. It will require the expenditure of some money and much thought to establish a high reputation, either for some particular stallion, a breed or a stock farm; but in the end, if judiciously managed, the owner will be fully repaid for his trouble.

### THE TROTTER BREEDS IMPROVEMENT.

Much has already been accomplished in many different lines, and yet there are plenty of comparatively unworked fields. There is a good field for one whose preference is in that direction for building up a reputation for the production of uniformly superior carriage and gentlemen's roadsters.

Plenty of stock farms are famous for the production of speed, but the trotters fall short of meeting the requirements of the market, as they lack in nearly every essential point just what the markets require. They have no particular type. They are produced in nearly every size, shape and breed known. They are wonders in their class, but they do not suit the fancy of 90 per cent. of the purchasing public.

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carriage and gentlemen's drivers, or in any other line, everyone should, however firm his opinions may have been at the start, be ready to modify, or entirely change them if with further research and experience he has reason to do so. Uniform conformation and color, together with trappy gait, intelligence, courage and good disposition, are the requisites that must be kept in mind if we would succeed in the breeding of fine carriage horses.

### Some Comments on Horse Feeds

Crushed oats require less grinding on the part of the horse than the whole oats and the former are therefore more suitable than the latter for feeding to those horses that are troubled with their teeth. The amount of chewing required by a food has nothing to do with the question of its digestibility, and it is quite wrong to argue that because crushed oats are more easily chewed by horses than whole ones they are more digestible than the latter.

Experienced horsemen very generally hold that crushed oats are not nearly so suitable as whole oats for horses required to be in hard condition and worked at hard paces. Though it is difficult to give a satisfactory reason why this should be the case, practical experience certainly proves that this opinion is correct. The expense incurred in crushing oats is a drawback to the plan of

properly, and an examination of the teeth should therefore always be made when a horse is off his feed and no reason can be assigned. A horse that is unable to chew his feed satisfactorily on account of something wrong with the teeth very infrequently "quids" his food. Horses are said to "quid" their food when they drop partially masticated lumps or particles of food out of the mouth while consuming their food of grain.

#### TOO HEAVY FEEDING.

Over-feeding on grain is very liable to surfeit a horse and to put the animal off his feed after a time. It is very easy to over-feed horses with grain because the great palatability of this kind of feed tempts them to eat more of it than they actually require.

While it is, of course, necessary that the horses in work should receive an ample allowance of grain, so as to keep them in good bodily condition, it is a bad plan to feed more than is required. The injurious effects of over-feeding with grain manifest themselves by the digestive system getting out of order, by the horses suffering from surfeit, and by "filled" legs. Beans especially are apt to cause "filled" legs when fed too lavishly or when given to lightly-worked horses.

There is not as a general rule, any risk of horses being over-fed with hay, even when it is fed to them ad libitum. Hay, moreover, is not

has not been given a chance to drink for some time. The horse should be watered, however, so frequently that there will be no temptation for him to hurt himself.

Our horses are always watered before being taken to the field in the morning. When brought in at noon they are allowed to drink all they will before being put in the stable. The same practice is followed when they are brought in at night. Where horses are watered three or four times a day there is no chance of them injuring themselves by taking too much.

### Facts About Cultivation

E. F. Eaton, Colchester Co., N.S.

Cultivation is not manure in the sense in which that term is generally accepted, nevertheless, we cannot expect to get the full value from the fertilizers which we apply to the land unless the fertilizer is followed with good cultivation. All of the fertilizing ingredients in farm yard manure are in an organic form. The breaking down of organic matter depends altogether on the action of soil bacteria. Proper cultivation, by aerating the soil and warming the soil, gives ideal conditions for the activity of these bacteria.

When the surface soil is kept loose, it is in proper condition to absorb rain water, which should be otherwise run off and be lost. Hoe crops should be cultivated within 48 hours after every rain. This breaks the crust formed and restores the mulch. During seasons of drought, by continual cultivation we are able greatly to conserve the water supply in the soil.

Deep cultivation during the summer is not necessary for hoe crops. Cultivate so as to leave a fine mulch two or three inches deep. If the cultivator leaves the land in rough ridges, a rake-like pulverizing attachment behind the cultivator leaves a smooth surface and evaporation is reduced.

### The One-Horse Power

J. A. Anderson, Stormont Co., Ont.

Since gasoline engines have come into general use there are many two-horse powers in the country that are seldom used. These could be converted into one-horse powers with comparatively small cost.

The uses of the one-horse tread power are numerous. It does the pumping of water for all the stock, separates, churns, pulp the roots and turns the grind-stone. It can be arranged to do any two of these operations at one time, as pump water and separate milk. My tread power was manufactured by Moody & Son, and cost \$100 when new.

For governing it I have a two-horse governor, but the wheel is so small, (diameter 28 inches), that it will not hold a large horse when doing light work. Therefore, I hang weights on the brake till I get it to run at the desired rate.

#### ALWAYS READY FOR USE.

I have used this power three years and it has not cost a cent for repairs. It is always ready for use. All that is necessary is to put the horse on, raise the brake and it starts. Either a light or a heavy horse will answer the purpose. The speed is so regular that we can fill the receiver of the cream separator and leave it running while we do other work. The power sits in the one place to do all the work. Pulls run to the different machines from a 20-foot intermediate shaft.

I cannot speak too highly of this power for the work I require it to do. I would not care to exchange it for any other kind of power. We use a six-horse power gasoline engine for heavy work, but it is not as dependable as the tread power, as it sometimes stops of its own accord.

There should be a small fruit patch on every farm and located near the house for convenience.



Corfield and Barns on an Ontario Farm

Good buildings not only add greatly to the value to the owner as well. The buildings illustrated are Notice the system of lightning rods which greatly feeding crushed oats that should not be overlooked.

It is often stated that dry bran has a constipating or binding effect upon a horse's bowels, but this is a mistake. It is an exceedingly wholesome food for horses, and very palatable. It is a particularly useful and suitable food-stuff for young stock, containing as it does a large percentage of mineral matter, which last is so essential to the proper development of the bones in growing. When mixed with water, and fed in the form of mash, bran, of course, has a laxative effect upon a horse's bowels. Bran mashes are invaluable in the stable on this account. Although coarse bran makes a useful food-stuff for horse-feeding purposes, other kinds of milling refuse are not suitable as horse foods. Occasionally, however, sharps, pollards (called middlings also), etc., are fed to horses and they agree with a horse well enough, but they are not in any wise to be recommended.

#### HORSES OFF FEED.

It not infrequently occurs that horses go off their feed without any apparent reason for doing so. In such cases their usual appetite may often be easily restored by the simple plan of missing out one of their usual feeds of grain. Trouble with the teeth is frequently the cause of horses temporarily losing their appetite and not feeding

of a farm, but are a source of pride and satisfactory on the farm of Mr. W. S. Jackson, Perth Co., Ont. lesses, the danger of loss from electric storms.

a rich and concentrated food like grain. No matter how large quantities of hay are consumed, it cannot prove harmful in the same way that grain does on account of the latter's concentrated and comparatively rich character when given in excess.

Occasionally, some gross and greedy feeders will unduly gorge themselves with hay when an unlimited amount of it is put before them. Not infrequently these voracious feeders fall back upon their bedding and eat that if their allowance of hay is curtailed. Under such circumstances peat moss or sawdust should be substituted for straw as bedding material, and a muzzle may be put on the horse between the regular meal times. — R. D.

### Water for the Work Horses

James Westlake, Carleton Co., Ont.

In warm weather we aim to give our working horses all the water they will drink at any time. Many horses suffer absolute torture for lack of water in hot weather, and their suffering is often due to mistaken kindness on the part of their owners, who are afraid that they will drink too much when they are hot, and thereby hurt themselves. There may be danger in giving a horse all the water he wants in cases where the horse

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Seattle, Wash., Nov. 1st, 1909  
"I have used your Spavin Cure and find that it is a sure cure for Spavin and aches in the joints."  
Squally Gray for Cash, Bolton, B. C., British Columbia and all Lanesboro.

Hundreds of thousands of horse owners have used it in the past 40 years. Today it is the world's standard remedy. Does not hurt the horse.  
#1 a bottle—#2 for B. G. Buy at druggist and get free copy of the Spavin Cure.  
Home—see write us. 41

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160 acres of land for the settlers in Northern Ontario. Situated south of the G. T. E. Transcontinental Railroad, South of Winnipeg, and 800 miles nearer the seaboard. A rich and productive soil, covered with valuable timber. It is rapidly increasing in value.

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

### D. SUTHERLAND

The Director of Colonization  
PARLIAMENT BUILDINGS, TORONTO

OR TO

### HON. J. S. DUFF

Minister of Agriculture

## SYNOPSIS OF THE NORTH-WEST LAND REGULATIONS.

ANY person who is the sole head of a family, or the male owner of a family, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta, and the applicant must appear in person at the Dominion Lands Agency or Sub-Agency, for the District Agency, by proxy may be made at any office, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties.—Six months' residence upon and cultivation of the land, or five years of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may pre-empt a quarter section alongside. Price \$3.00 per acre. Duties—Must reside upon the homestead or pre-emption six months in each of three years from date of homestead entry including the time required to earn homestead patent and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption, may enter for a purchased homestead in certain districts. Price \$3.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. CORRY,  
Deputy of the Minister of Agriculture.  
N. B.—Unauthorized publication of this advertisement will not be paid for.

## ONTARIO'S NORTHERN EMPIRE

The First of a Series of Articles written Especially for Farm and Dairy by Colin W. Lees, our Editorial Representative, who is Visiting the Settlers in Northern Ontario, to gather First-hand Information for the Benefit of the Readers of Farm and Dairy

NEW LISKEARD, July 6, 1910.—For twenty-five years or more, the sons of old Ontario farmers have been pouring westward and spreading out over the vast fertile prairies of Manitoba, Saskatchewan and Alberta, unaware of the existence of millions of acres of unoccupied farm lands in their own province, and unable if they had known of them, through the lack of transportation facilities, to reach them.

The construction of the Canadian Pacific Railroad, through the rocky tract that borders the northern shore of Lake Superior, gave all the country between Lake Nipigon and Thunder Bay a bad name and until comparatively recent years it was classed as worthless.

The discovery of iron and subsequent development of mines in the Michipicoten district, the development of the world's greatest nickel mines at Sudbury and the world's greatest silver camp at Cobalt, have done much to redeem the reputation of New Ontario. But, far more important, has been the discovery of a large tract of land suitable for agriculture.—The Great Gray Belt—as it is called, extending from the Lake Abitibi district on the east to Lake

allows them to go up and see the land and return at a small expense. Special rates are also made for settlers and their effects.

The Crown Lands lying in this agricultural belt are sold at a uniform price of fifty cents an acre. The few conditions of location are easily complied with. At least 15 acres are to be cleared and under cultivation at the end of three years. A habitable house is to be erected at least 16 to 20 feet in size. A lottee is not bound to remain on the land all of the three years; if obliged to work out, or if he has other good cause, he may be absent for not more than six months altogether, in one year. He must, however, make it his home and clear and cultivate the area of land required. The agents along the railroad report that as a rule the conditions are well fulfilled. Inspectors are appointed to see that the settler lives up to his agreement. Then new settlers coming in do not wish to go back and sometimes spend three or four months searching for a claim they may be able to cancel. So, between the inspectors and incoming settlers, the conditions are generally carried out.

SETTLERS GOING IN RAPIDLY.  
Five years ago there were 2,000



A Delivery of Farm Implements in New Ontario

An evidence of the great demand that exists among the settlers in New Ontario for farm implements and other farm and household supplies, is furnished by the illustration, which shows 70 rigs in line at New Liskeard, March 4, 1910, to get machinery delivered by one firm.

Nipigon on the west, a distance of between 400 and 500 miles. It varies from 200 to 300 miles in width and is estimated to contain between 16,000,000 and 20,000,000 acres of good farming land; an area considerably greater than all the land in Old Ontario now under cultivation. For the most part, this vast area is well watered, rich in soil and at present, thickly timbered with pulpwood. The climate is favourable to the raising of crops and the time is not far distant when this great gray belt will support a large and prosperous farming population.

### ASSISTING SETTLERS.

The Crown Lands Department of Ontario is doing everything possible to open up the northern country and to place settlers on the land. The Temiskaming and Northern Ontario Railroad, owned by the province and operated by a commission, was opened a few years ago. It starts at North Bay and proceeds northward to Cechrane, the junction of the Grand Trunk Pacific Railway. Eventually it may go to Hudson Bay. Due to the construction of this railroad, and the building by the Ontario Government, of good roads throughout the agricultural section, some of the townships thus resemble portions of older Ontario, so well settled and prosperous are they.

The department issues special certificates to prospective settlers, which

people in New Ontario; to-day there are between 50,000 and 60,000. Such in brief is the story of the migration into a country practically at the commencement of development, but one of tremendous possibilities. The settlers are returning to their original business of clearing and cultivating the land after a fever of prospecting and the district shows evidence of entering upon an era of solid and lasting progress.

The Liskeard Crown Land Agent estimates the number of bona-fide farmers on the clay belt, in this section alone, to be over 2,000. This number is increasing daily. There are several townships now without a single acre of crown land within their borders.

### A RICH SOIL.

Generally speaking, the soil is almost exclusively alluvial-clay, light brown, yellow or whit. Beds of gravel are rare and few deep. Outcroppings of rock seldom occur. They are more frequently in the townships bordering the height of land, which crosses the clay belt 175 miles north of North Bay. Above this point all the rivers flow towards the north.

While in Liskeard a day or two ago, your correspondent examined some of the clay belt, he was impressed out in excavating for a trunk sewer. It was as heavy and as tough as putty, and impossible to break. On the other side of the pile was clay that had been thrown out a few days before and in-

stead of being baked into a solid lump it had a fine seed bed. To one accustomed to the behavior of clay in the south, the action of this northern material is surprising. When mixed with the vegetable mould that covers the clay to a varying area of 10 to 18 inches, it makes a beautiful, friable, productive soil.

### PLEASANT CLIMATE.

The winter is cold, but on account of the dryness of the atmosphere, the cold is not unpleasantly felt. Snow falls to the depth of three or four feet and is of a light feathery nature, so that a horse may walk through it. In summer it is very dry, with a mean of 100 degrees, F., in the shade. In winter, the days are from two to four hours shorter than in the south, but compensation is made in the summer when they are that much longer, which is responsible for the almost incredible growth characteristic of the clay belt.

### AGRICULTURAL TEMISKAMING.

This and subsequent articles will do to exclusively with agricultural Temiskaming, where your correspondent is calling on the settlers and gathering information about the agricultural progress and possibilities of the district.—Colin W. Lees.

### Farmers or Soil Robbers, Which?

A. Heeler Cullen Co. Co. N.S.

To confine our farming to the raising of grain and the use of heavy application of fertilizers, must result in impoverishing our soil. The larger the crops the more rapid will the exhaustion be. Years ago the Manitoba farmers considered manure a nuisance to be got rid of in the easiest way possible, whether by dumping into streams, over banks, or piling up to be left. Now they realize the value of it as well as we do in the east. They considered their land inexhaustible. Comparing the yield of the great Portage Plain, then with what it is now, they realize that they are not dealing fairly with their land.

The land turns from him who always takes, but never gives anything in return. He who persists in this course of cropping will learn sooner or later that honest, generous treatment is best with land, as it is with men.

If a census were taken of the farmers of the American continent whose farms are in good or better, than they were when they bought it, as the case may be, and also of those who are letting their lands deteriorate, or are eroding them out by successive selling of the crops without returning any fertility to the soil, the first would be classed as farmers, and the latter as land robbers.

### THE WESTWARD MOVEMENT.

After cropping to death the rocky hillside farms of the New England States, the population moved, and many of the rocky farms of the States where the soil was richer and the process of robbing was naturally slower. Next they tried the American west with its fertile, rolling prairies, and it was not long before they found that treatment it has had and is receiving.

Now their attention is turned to our Canadian west, and they are swarming across the line by the thousands, to skim the cream from the vast heritage we have there which should be guarded zealously. We should take care that it is not proposed to give more care than the advice of Horace Greeley be obeyed: "Go west, young man, go west," because it is the last west."

Once the crop is in the ground, its success or failure depends altogether on the amount of cultivation it receives. Cultivation keeps down weeds, and the clods are broken down into feed. It maintains a fine earth mulch on the surface, and thereby the loss of moisture due to surface evaporation is greatly lessened.

### Dairying Growing in Nova Scotia

Prof. M. Cumming, Principal N.S. Agricultural College.

Dairying is rapidly developing in Nova Scotia. All conversant with the conditions agree that Nova Scotia is especially suited to dairying and it has been a matter of regret on the part of those interested in the province that the industry has not made greater strides than it has. However, there are encouraging signs of progress.

The writer has to hand the latest report from the Scotsburn Creamery, which was established some years ago under the direction of Dr. J. W. Robertson, then Commissioner of Dairy for the Dominion of Canada, as a model for and stimulus to other factories in the province. The factory was purposely placed in a section where dairying was not in a very flourishing condition, but where the conditions of the farms made it almost imperative that dairying must be resorted to, if for no other reason than to build up run-out fields. Unfortunately the factory did not make a success for a few years. In the season of 1909 marked progress was made, the out-put of the factory being nearly double that of the previous year.

MARKED PROGRESS MADE.

We now have the report for the month of April of the present season,

right in line with what is being done at Scotsburn, that within the past few weeks one new factory has been established and applications for the establishment of three more received. The prospects are good and the room for development almost unlimited.

### Haying Made Easy

W. F. Blanchard, York Co.

When I start to cut, the mower is followed by the tedder in order to shake the grass up well and the hay dries much faster. When dry, I use a side delivery rake to throw into windrows and start to draw in immediately. I use the loader and think it is fine. I had 120 loads of hay last year and got it in in good shape with only four men. The hay fork is used in unloading.

### Mixed Farming More Profitable

A. Hector Cullen, Col. Co., N.S.

A large majority of the practical farmers of Canada have come to the conclusion that more regular and larger profits result from the cultivation of a variety of crops coupled with the keeping of as much live stock as the farm can consistently carry, than where all the labor and capital are expended in the production of some special crop, as wheat, corn hay or beef. While many have a correct

him the power to offer of his products such only as are in demand at paying prices.

Mixed farming has the advantage of a more equal distribution of labor through the year. To the man who specializes it is often very difficult to get sufficient help for the busy seasons, and after that, difficult to find paying employment for regular laborers. Mixed farming adjusts the work throughout the year.

### Our Legal Adviser

TREES ON BOUNDARY LINE.—Will you please tell me if I can make my neighbor cut large branches from the trees which are troublesome on my side of the line? In this country, the ditch is also a line, and the branches are on one side of the ditch. Lately he cut some of these branches out and threw them on my side. Can I make him take them off my land?—M. L. Russel Co., Ont.

Trees in the neighborhood of a boundary line are the property of the person on whose land the trunk happens to be, but the owner of the tree is not entitled to have the branches extend over his neighbor's land, and his neighbor is entitled to cut off the branches extending over his land. The branches cut off are the property of the owner of the tree, and we would consider that the person cutting the branches would be fully entitled to place the branches back upon the land of the owner. The position of the fence or ditch does not affect the question, as they are not necessarily on the true boundary line between the parties. It is the position of the true line, such as the surveyor would run, and not the position of the

ditch or fence, which determines the ownership of the trees.

WITHHOLDING WAGES.—If A hires with B for seven months at \$36 a month, and A quits before time is out, can B hold back any of the wages, as A hired at \$36 a month for seven months?—"Sun," Nesbitt, Man.

"A" having hired with "B" for the full period of seven months, although his wages are stated at a certain amount per month has no right to leave "B" before the term is completed. If he does "A" will be entitled to recover the \$35.00 for each month of service that he fully completed, but "B" will be entitled to set off against this claim the damages which he had sustained by reason of "A" leaving him. If, for instance, he had to pay another man a higher wage, he would be entitled to look to "A" for the difference.

QUERIES RE WAGES.—If a farmer hires a man for the year, and sacks him before time is out, can the man make the farmer pay the wages for the year; or if he lives at another place and has to take less money to get work, can the man make the farmer pay what the difference would be? If the man was to leave the farmer he would keep back a certain amount.—T.R.K.

If the farmer hires a man for a year he is not entitled to dismiss him during the period without good cause, such as prolonged sickness of the man, his incompetence to do the work he had hired for, or his refusal to work. If the man is dismissed and has to take lower wages from some other person he will be entitled to recover from the farmer who dismissed him the amount of the wages agreed upon less such sums as he actually earns elsewhere for the balance of the term.

### Which?

N.S.

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A Binder That Has Rendered Long and Satisfactory Service

The illustration reproduced herewith shows a Peter Hamilton binder that has been cutting grain on the farm of Mr. W. F. Payne, Hall's Glen, Peterboro Co., Ont., for the past twenty years. It has cut the grain on two farms, and is in good shape and ready for more service today.

and are gratified to observe that the amount of butter made during the one-half time larger than during the corresponding month of 1909. We are further advised that Mr. W. A. McKay, the manager, hopes to manufacture during the whole season nearly three times as much butter as was made last year. True, the cream gathering system has enabled the management of this factory to operate over a greater area of country, but the marked increase comes largely from the same area, in which operations were previously carried on. Last fall, an exhibit of butter sent all the way from this creamery to Toronto, was awarded in open competition second prize. A recent letter from Mr. Ruddick, Dairy Commissioner, at Ottawa concludes as follows: "Scotsburn is a success at last."

### PRIVATE DAIRYING.

Nova Scotia has such a large consuming population in proportion to its producing population that private dairying is naturally encouraged to a greater extent than in other parts of the Dominion. There are few farmers but are within easy access of local consumers of butter. This has led to the development of dairying along home dairy, rather than factory dairy lines. It is significant, however, and

theory on this subject, they still cling to their old methods, more especially in Western Canada, and go on cropping with wheat and grains year after year. Such farmers often succeed and make money, but the time will come when their lands will, from poverty, refuse a fair return for labor expended on it.

Two of the more important advantages of mixed farming are to preserve, and even increase largely, the fertility of our land and to produce better, more systematic and thorough farming. It requires more thought and study to raise several crops successfully and to breed and care for one stock than to pay all our attention to one.

### THE ADVANTAGE IN MARKETING.

The farmer who has a number of crops to sell will find his average profits larger and surer than where he has only one. In the latter case, his profits may be large when prices are high, but when they are low he may sell at a price hardly equal to the cost of production. With a variety of products he will be very likely to find a desirable market for some of them. And so mixed farming helps to make the farmer more independent. It removes him from the grinding laws of a capricious market, and gives

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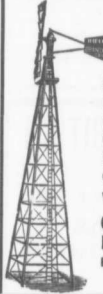
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## HORTICULTURE

### Cover Crop in the Orchard

John Watson, Ontario Co., Ont.

We make a point to keep the cultivator and harrows going up till the first of July, then about that date or a day or two after, we sow buckwheat. We have to stop cultivating at this date, and it is necessary to sow a crop or the weeds would get ahead of us. We harvest the buckwheat crop although we are at a disadvantage in cutting it. The crop, however, is more for keeping the weeds down and leaving the land mellow than for the value of the crop. Last year, however, we threshed about 150 bushels from ten acres.

It is out of the question to think of plowing the buckwheat under as it can not be done when the trees are loaded with fruit in the fall and it would not do to leave it till spring as the grain and straw would encourage the mice. In addition it would be difficult to get around to harvest the apples.

### Lime in Spray Liquids

I recommend adding anywhere from five to 10 pounds of lime to each 50-gallon barrel of the diluted commercial spray liquid. The lime should be slaked in water to a creamy consistency and then strained through a good strainer into the spray liquid. It will then make a white mark on the trees. It is very important that this marking substance be used, so that you can be sure that the work is done thoroughly.

Lack of thoroughness of application is the chief factor that has been against entirely successful results in spraying, especially in using the lime-sulphur wash, which is the best preparation that can be used in this state for scale insects.—Professor H. A. Surface, Harrisburg, Pa.

### Fire Blight of the Pear

Fire or body blight of the pear is the most destructive of all the bacterial diseases of plants. The disease is peculiar only to North America and

attacks pears, apples, plums and quinces, although in the spongy bark of the pear it develops most readily and causes the greatest injury.

Fire blight is found in North America wherever fruit is grown. In warm rainy seasons, it has been known to practically destroy all the pear trees in one section. The first evidences of the disease are usually found at blossoming time. Some of the blossoms will become brown and die. If the wood in the twig is examined, it will be found to have turned brown. This infection is caused by bees. On the trunk of the tree the disease takes the form of smooth, sunken patches, which may be readily recognized.

So far as is known the disease cannot be combated except by the cultivation and manuring of the pear orchard renders the trees more susceptible to the disease. This conclusion, however, is not borne out by careful experimental work.

The only way of combating the disease successfully is to clean out all infected wood. Cut off all infected twigs and burn. Where the canker is on the trunk or large branch of the tree, cut it out with a sharp knife making sure in all cases to cut back to healthy wood. Wash the wound with corrosive sublimate (1-1,000) and paint with white lead. It will be necessary to clean up all old trees in the neighborhood in the same way so that they may not prove a source of infection.

The pear trees should be inspected every week during the growing season and every fresh sign of canker removed. When cutting out the canker, keep the knife disinfected with corrosive sublimate or dry glutens as an agent for spreading the disease.

### A Few Good Pruning Tools

O. B. Whipple, Colorado Experiment Station.

Every pruner should be furnished with good pruners; good tools encourage him to do good work. The tool does not necessarily mean that he must have every tool on the market. Many of them are useless. It does mean, however, that the ax and a dull saw have no place in the catalogue of pruning tools.

The pruner needs a good saw, a good pair of light shears, a pair of heavy shears, possibly a good heavy knife, and, of course, a good ladder. Two common types of saws are found on the market. The common saw with teeth on both edges is a good, cheap one and will answer the purpose in many cases. The various makes of the swivel saws are much handier, however. The blade is stretched between swivels and can be turned to any angle with reference to the frame. It is well adapted to close work in the crotches of the tree. This type of saw can generally be bought for \$3. The blades are not so frail as they look and seldom break if properly handled. They can be replaced at a cost of 50 cents. It is really the best type of pruning saw and should be more universally used.

A good type of hand shears is indispensable for light work. Various makes are on the market; buy the one that appeals to you. A pair of heavy shears is almost an essential; they take the place of the saw in many cases and will do the work in less time. They are used in heading in limbs where the saw can hardly be used; they reach pruner finds good use in them. They work on limbs up to one and one-half inches in diameter. The only objection the writer has to this tool is that the pruner gets crotchety and leaves stubs. There is a type of heavy shears on the market that has two cutting edges instead of one, and it seems to do better work. The pruner finds very good use in knife in pruning mature trees and seldom carries a special pruning knife. Several types of the long-handled tree

pruners are on the market, but they are of little value in the orchard. The pruner should be close to his work, and with a good ladder and short-handled tools he will do better work.

### Growing Plants by Electricity

J. M. Mussen, Trade Commissioner, Leeds.

Recent experiments made in England point to the fact that it is quite within the bounds of probability that electricity may in future be brought into requisition by fruit and other farmers as an aid in the production of their crops. Already they are not wanting signs to show that the efforts made to utilize this force are bearing success.

As and it is impossible to state definitely what the exact part is that electricity plays in the life of the plant. One theory advanced is that the electric current assists in the formation of starch in the growing plant, even though light be absent. Another explanation is that electricity increases the power of vegetation to imbibe particular elements. It has also been suggested that electricity has a nitrifying effect upon the soil, thus causing a manural change in the character of the land.

### RESULTS OF EXPERIMENTS.

The results of the most recent experiments made with a view to the application of electricity to wheat have been striking. Roughly speaking, the electrified wheat grown during three years of average about 40 per cent. over ordinary grown grain. It has also been shown that electrified wheat produces a better flour, which is more satisfactory for baking purposes and also for dry glutens. One trial in connection with the electrification of Canadian "Red Fife" wheat produced 35½ bushels an acre against 25½ bushels of un-electrified wheat, an increase of 40 per cent. In the case of English "White Queen" wheat, 40 bushels an acre have been obtained when electrified, as against 28 bushels an acre of non-electrified wheat.

Various kinds of fruits and vegetables have also been tried. Although no positive results were obtained as to the yields various in crops where the produce from the electrified plot was less than that obtained from the control plot, a marked earliness in the maturing of the crop was noted. In this connection, it was pointed out that the early ripening of fruit would be peculiarly advantageous.

The latest information as to the outcome of the most recent experiments shows a greatly increased yield in the case of potatoes and wheat. In the case of strawberries, no less than 35 bushels of fruit were obtained from eight acres of land as a result of electrical treatment.

### COST OF ELECTRIFICATION.

As regards the working side of the electric treatment of the apparatus for supplying the current, consists, of course, among other accessories, of an oil engine, dynamo and a transformer for converting the current into high tension. One of the experimenters puts the initial cost of his installation for treating 30 acres of strawberries at \$1,500, and the annual up-keep of the plant at \$315. Whether the increased value of the crops obtained would counter this outlay, depends, of course, entirely upon the produce grown, but it is conceivable that the system would pay for itself to large fruit growers, as the expenditure of electric energy in a fruit field would bring about much larger returns than in the case of wheat.

However, the whole subject is still in the experimental stage, although the results so far achieved justify sanguine expectations that electricity will be of much practical use to the farmer when the methods of employing it to the best advantage have been discovered.

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J. H. BUTCHER

Telephone



July 14, 1910.

Vegetable Crop Prospects

J. Lockie Wilson, Sec'y Ontario Vegetable Growers' Association.

The crop reports received by the Ontario Vegetable Growers' Association from the branches of that Association at Oshawa, Toronto, Berlin and Brantford show that the tomato crop is looking well, but rain is needed. Early potatoes are rather patchy, and suffering from drought-bugs being plentiful. Spraying with poisoned onion crop is looking well. Celery shows an average much the same as last year with the crop looking fairly well; no damage as yet from blight although some is reported to be running to seed. Cabbage and cauliflower have not changed much in acreage so far. Drought has retarded late from cut warts and the pest is controlled by using poisoned bran. Oshawa reports that the beet growers for the canning factory are looking well.

In the southern division, as represented by the branches of Ojibwa, Tecumseh, Dunville and Hamilton, the tomato crop is reported to have decreased in acreage owing to the reduction in price of the canning factories. The crops are looking well. The early crop of potatoes is a little late; the main crop is good. Dunville reports damage from the flea beetle, with bugs abundant. In Canada the conditions of the crop are fair, although the root maggot is very bad. In celery, there is a slight increase in acreage with the crop looking good. Rain is needed. Cabbage and cauliflower shows a fair crop. Dunville reports that peas, beans, and corn for factory purposes are looking well; peas excellent. Ojibwa reports a heavy frost on June 10th, killing melons and cucumbers.

The reports from the eastern part of the province, from Ottawa, Kingston, Belleville and Picton, show that the tomato crop has been reduced owing to heavy frost in Ottawa and Kingston on June 3rd. The crops at Picton and Belleville are looking fine outwards. The onion crop is very satisfactory, except at Ottawa, where celery, fine, but needing rain; cabbage and cauliflower crops are looking fair. Unless we get a very soon, vegetables will be poor. We are having one of the worst droughts we ever had. Strawberries, seriously threatened. Currants and gooseberries dropping badly.

In the western division of the province, as shown by reports from Sarnia, St. Thomas, Stratford, Woodstock and London, the tomato crop is fair although improving rapidly. It shows some damage from cutworm doing well and the potato crop is promising, while the celery crop looks the early planting delayed by drought. Sarnia reports an increased acreage in peas and beans and the Port Arthur market. Reports from all parts of the province show that the long continued drought is causing great anxiety for the future in the minds of vegetable growers. Late planting of cauliflower, cabbage and celery are being delayed beyond their proper longer will be the cause of great damage to other crops.

Farm and Dairy is of much importance to us as farmers. It contains much that we want.—John G. Prout, Lennox and Addington Co., Ont.

Elm Grove Poultry Farm Offers for sale 20 one year old Barred Rock hens at \$1.00 each 15 Rose Comb one old Bona ducks, and a number of J. H. BUTNERFORD, Box 63, Caledon E., Ont. Telephone Bolton.

POULTRY YARD

Chicks Under Farm Conditions\*

Prof. W. B. Graham, O.A.C., Guelph. Under no other conditions can chicks be raised more satisfactorily or more economically than under those that prevail on the farm. Chickens must not be kept too long on the same area of ground if one would get the best results. Where large numbers are raised on two acres of land year after year, the land eventually becomes what is known as "chicken sick," and the mortality increases very rapidly. Stum conditions are produced. This is one of the first principles which must be carefully observed by those intending to raise poultry. Remember, the most sanitary conditions operative in poultry raising give best results.

CHICKS IN THE CORN FIELD. Excellent results have been obtained when young chicks have been allowed to have access to the too-crops throughout the summer. Some may say, "Why, they will destroy all my corn and roots." The chances are they may if you don't feed them, and feed your growing chicks. And if they are fed a reasonable amount they will do no damage whatever to the corn and roots.

As the cultivating is being done throughout the summer, the birds being insectivorous in nature, make good use of all worms, etc., that are exposed and which would otherwise injure the growing crop if not destroyed by the chicks. A thousand chickens on 20 acres of land can be handled very well in this way.

At the Ontario Agricultural College chickens grown in this way are housed at night during the summer. Colony-houses with a canvas front are used for this purpose. These colony-houses have board floors, preventing stinks from molesting the chickens. Each house is built to accommodate about 100 chickens, so that little work is involved in housing a thousand.

A very important feature in the successful growing of chicks in summer is the question of drink. Like all our farm animals, chickens must be supplied with plenty of clean water to quench their thirst. Sweet milk is used by some farmers, but is not to be recommended, as disease spreads much more rapidly by using it than from using buttermilk, for instance, which is one of the very best drinks for chicks and is highly recommended. The acidity of the latter tends to destroy disease producing germs.

A CONVENIENT WATER SUPPLY. But when growing large numbers of chickens on a large area of ground the inconvenience and extra labor involved in supplying water to the regular intervals would prove more expensive than another method used at the O.A.C. last summer. We placed a large clean barrel filled with fresh clean water in the field, in a most convenient place for the chickens to get their necessary supply. In the bottom of the barrel was driven a nail and then slightly loosened, the water produced a small opening for the water to drop below into a pan placed there for that purpose. The supply in the barrel could be replenished every three or four days or even once a week, and the growing chickens were thus provided with good fresh water at all times.

If the barrel were placed in the shade of a tree and covered, it would add to the keeping qualities of the shiny and clear water. In case the water becomes cloudy or unhealthily looking, place in potassium permanganate or add a pinch on a 50-cent piece. This serves

\*Part of an address delivered at a poultry session of the last Guelph Winter Fair.

as a disinfectant, checks the spread of disease and in no way interferes with the palatability of the water.

The following is a comparison of chicks grown on pasture land and those grown in the orchard at O. A. C. last summer: 315

Table with 2 columns: Category and Value. Rows include: THOSE GROWN IN ORCHARD, No. of chicks (773), Grain consumed (8649 lbs), Amt. grain eaten by each bird (11.16 lbs), produce 1 lb. flesh (3.34 lbs), Average wt. at 5 mths. old (3.34 lbs). THOSE GROWN ON PASTURE LAND, No. of chicks (315), Grain consumed (4304 lbs), Amt. grain eaten by each bird (12.4 lbs), produce 1 lb. of flesh (3.2 lbs), Average wt. at 5 mths. old (3.9 lbs).

Both areas were practically the same and both groups were of the same age.—R. B. C.

Grit is a hen's essential for grinding the feed. Yards that have had poultry in them all the time are a rule grit bare, and a commercial grit should be furnished in separate receptacles.

The information of co-operative egg shipping societies has extended beyond the bounds of Peterboro County and two egg circles have already been formed in Ontario County, in the neighborhood of Beaverton, and will start to ship eggs in the co-operative plan in a very short time. Their trade has been secured by Mr. J. I. Brown for Gunn, Langois & Co., of Montreal.

GO TO OTTAWA DURING CENTRAL CANADA EXHIBITION SEPTEMBER 9th to 17th, 1910 \$17,000 in PRIZES, chiefly for Live Stock and Farm Produce. Worth trip to see Dairy Competitions and get lessons from bullter making experts. Large exhibits of latest Farm Implements. Railway rates reduced. New Buildings. Improved Grounds. Novel Attractions. Information on Entries, Prize Lists, etc., furnished by E. McMAHON, Secretary, OTTAWA

FREE SAMPLE CULVERT TO FARMERS Say you are interested, and we will gladly send you Free and postpaid a sample of the only Practical culvert and a handsomely illustrated book telling all about it. For drainage, road-repair, and a score of farm-uses this culvert so economical as this. Made of heavy Billet Iron; curved cold into half-section. Then deeply corrugated—makes it five times stronger than smooth surfaced pipe. With lead and zinc against rust. Will stand tremendous strain. Will outlast. LEARN ALL ABOUT THE MOST PRACTICAL AND DURABLE CULVERT to make it proof against any decay, corrosion, or any other material.

PEDLAR NESTABLE CULVERT. Illustration showing a horse-drawn cart carrying a large barrel (culvert) on a wooden frame. The barrel is being lowered into a hole in the ground.

These pictures show how easily and quickly you can lay Pedlar Culvert. Comes nested, half-section within half-section—saving freight and cartage. Triple-thick Flange locking ribs on each side are clamped together by a simple tool—no bolts, nuts, or wooden clamps. Joints are breakers—only culvert you can do that with. Ends interlap, thus avoid tremendous strains. Won't leak, nor buckle, nor creep, nor rust. Clean, clear, smooth culverts.

An Investment—Not An Expense Investigate first. Send for the free samples and form. Then recommend this culvert to your township officials—push the Good Roads Movement—this culvert keeps roads in better shape. See it, too, for any drainage about your farm—there's a size for every purpose. Railways use and approve it—and you know what careful buyers railways are! Investigate.

Rust-Proof Won't Decay Easily Laid Send NOW for FREE Sample, Booklet No. 20, and Low Prices. Address our place nearest to you. Made in Every Size from 8 to 72 ins. diameter The PEDLAR PEOPLE of Oshawa. HALIFAX 65 Water St. OTTAWA 421-423 Bank St. CALGARY 111-113 Bank St. LONDON 66 King St. WINNIPEG 76 Lombard St. MONTREAL 321-3 Centre St. TORONTO 200 King St. W. GUELPH 127 Rueda Point. SARNIA 1901 Centre St. REGINA 621 Powell St. PORT ARTHUR 405 Campbell St. VANCOUVER 621 Powell St.



# FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.

**I. FARM AND DAIRY** is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Bedford Districts. Ownership is vested in the members of the Canadian Hotelier, Ayrshire, and Jersey Cattle Breeders' Associations.

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**3. REMITTANCES** should be made by Post Office or Money Order, or Registered Letter. On all checks add 20 cents for exchange fee required at the bank.

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

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

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

## CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed \$300. The actual circulation of each issue, including the copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 800 to 1000 copies. No subscriptions are accepted at less than the full subscription rate. Thus our circulation does not contain any false figures.

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

## OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertiser's 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 is unscrupulous, even to 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 to the benefit of all who protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefit of this Protective Policy, is to include in all your orders to advertisers, the words, "I wish the advertiser to be sent us as soon as possible after reason for discontinue found."

## FARM AND DAIRY

PETERBORO, ONT.

## WORK FOR AGRICULTURAL SOCIETIES

Each year, it is becoming more and more apparent that we have too many agricultural societies in Ontario which do nothing for the promotion of agriculture, beyond the holding of an annual exhibition. The increasing tendency on the part of many of these societies to make horse racing the outstanding feature of their exhibitions is emphasizing the fact that a large part of the \$100,000 given by the Ontario Government to these societies is practically wasted as far as the advantage of agriculture is concerned.

The report of the Canadian farmers who visited Denmark to study the swine industry in that country shows that the Danes have made a great success of breeding centres. Through these centres, which are located in different parts of the country, experiments are conducted which make it possible for local farmers to purchase sows likely to be prolific producers.

What is to prevent the work of many of our agricultural societies being so re-organized that more work of this nature can be conducted? A re-organization of the work of many of

the agricultural societies is needed. Instead of letting things drift, as there seems to be a tendency to do on the part of the agricultural societies branch of the Department of Agriculture, a movement should be started without delay to increase the value to our farmers of the agricultural societies of the province.

## A MARITIME AWAKENING

The stagnation which has characterized agriculture in the Maritime Provinces for many years is passing away. Nova Scotia is leading in the revival. There are many signs to show that Maritime farmers are beginning to appreciate the possibilities of their own provinces.

It is hard to understand why agriculture in the eastern provinces should have been in such a backward state. The larger portion of the population is engaged in other occupations than farming. Thus an excellent home market is afforded for all agricultural produce. Yet for many years large quantities of foodstuffs have been imported from Ontario and elsewhere. This condition of affairs is likely to soon be a thing of the past. The great interest taken in agricultural education, followed by improved methods, the settlement of abandoned farms by new settlers and the work of the farmers' institutes, together with that of the Nova Scotia Agricultural College, under the able direction of Principal Cumming, will soon put Maritime Canada in the front rank of agricultural progress.

## THAT MATTER OF CORRESPONDENCE

"I am anxious to start a herd of pure bred Holsteins. I have written to four different breeders in Ontario, but have had no answer." This statement is extracted from a letter to hand from a man in British Columbia.

It is frequently stated, and experience bears out the statement, that a farmer would rather drive ten miles than write a letter. There may be a few isolated instances where the spirit of independence is so well backed up financially that one need not put himself out to the extent of replying to a letter. A breeder, however, no matter who he be, cannot afford to practise such a policy. Common courtesy demands that at least some reply be given, and even if one has no stock for sale and, perhaps, would not care to deal with men at a great distance, it is a matter of very little expense and time to send a post card, or a letter.

Farmers are not alone in being open to censure in regard to correspondence. Some of our large manufacturers are not above criticism in this respect. A case in point, which recently came to our notice, is that of a large manufacturer of gasoline engines, which firm, on request of a farmer for a catalogue, delayed nearly three weeks before making any acknowledgment, and then the matter was referred from one department to another until fully a month had passed before the catalogue and full information reached the farmer. In

the meantime, although the engine as placed on the market by that manufacturer, stood in considerable favor with the farmer who wrote for the information, he, thoroughly disgusted with their methods of correspondence, had purchased elsewhere an engine of different make.

Advertising alone cannot, save in rare instances, complete sales of stock or merchandise. It will bring enquiries. Sales must depend upon correspondence sent out in reply to enquiries. This being the case, an early and well written reply is of paramount importance. Even if there be no sales to make, one cannot afford to risk any ill will created by failure to acknowledge enquiries.

## AN ATTEMPT AT DECEPTION

What petty subterfuges some people, including public men, will resort to in an effort to divert attention from conditions that they know should not exist. Farm and Dairy recently pointed out, as did a number of other papers, that the bar of the House of Commons should be abolished. Attention was drawn to the fact that this bar has helped to injure many public men and that its presence in the Parliament Buildings at Ottawa does not comport with the dignity of Parliament. This led a Colonel Smith to point out that the bar of the House was abolished many years ago, and that by general consent it has continued in that condition ever since.

A half truth is sometimes worse than a whole lie. It is true that the House of Commons bar was abolished, at least in name, some years ago. Since then, however, what is known as the Senate bar, has answered the same purpose. This bar is located in the Commons portion of the main building on Parliament Hill, and while it is under the management and jurisdiction of the Commons bar, it is generally known as the Commons bar. It was to this bar that the members of the Anglican Synod, which met in session recently in Ottawa, referred when they asked that the bar should be abolished. What is the use of a man like Col. Smith endeavoring to draw a herring across the trail.

## THE CREDIT SYSTEM

To buy merchandise of any kind on credit is, in most cases, poor business policy. There are cases where the credit system helps a man to get started, and can be used to good advantage. When, however, a man with money in the bank buys goods on credit he shows little knowledge of business methods.

The manufacturer who allows you to pay on time values the interest on the money invested in your purchase just as much as you do. He takes good care to charge enough extra for the article to make up this interest. But, in addition, he assumes a certain amount of risk for which he charges interest as well. The risk money varies with the class of people in the district where the firm is doing business, but the total interest which we pay is seldom less than seven per cent. To pay seven per cent. or more to a manufacturer for the use of his

money when we have money of our own in the bank drawing three and a half per cent. business. Yet there are thousands of farmers in Canada who are doing this very thing. Every county storekeeper and every agent for agricultural implements can refer you to numbers of such cases.

The man who pays cash is not only getting a higher rate of interest on his money than the man who leaves it in the bank; but as he is a desirable customer, he can buy on the cheapest market. Merchants compete for his trade. The man who buys on time, unless his standing is well known, has to buy where he can find a dealer to trust him. A little careful thought on this subject of credit would save some of us a good many dollars, which we are now losing, owing to our unwillingness to withdraw any of our savings from the bank.

## OLD HENS UNPROFITABLE

Owing to the fact that poultry is considered to be too small a thing to engage the attention of some farmers, the work of caring for the hens have been handed over to the women folk or the children. Owing to the general lack of information on the part of the farmer or his family as to how to best care for his hens, many flocks of poultry have been allowed to sink into a state where it is impossible to keep them at a profit.

In connection with the organization work of the co-operative egg circles in the vicinity of Peterboro, an editor of Farm and Dairy recently came across an outstanding instance of this kind. The poultry and eggs produced on that farm were costing \$2.00, and perhaps more, for every \$1.00 worth produced.

The hens were all old. They laid for but two months each year, and then they wanted to set. These hens were being kept over in the hope that they would lay next year. The owners could have made no greater mistake for the hens had long since passed their period of usefulness as layers, and therefore should have been disposed of and replaced by younger stock.

Average hens, after their second laying season, cease to be profitable. They might far better be sold during June or July at the good prices then prevailing, and, if need be, younger birds purchased to fill their places.

The first cost of a spray pump is soon returned to the purchaser in increased returns from the orchard. For small orchards, hand-pumps give excellent results; they are cheap and can be used also in the potato field and elsewhere when needed. For large orchards and for use in a group of small orchards whose owners club together, the power sprayer is the most satisfactory and economical.

It is high time that we took better care of our farm machinery. The farmer's business is the only one that can stand such waste. There is no business man who would countenance neglect that would lead so cheaply machinery to wear out with only three months use in as many years.

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35 pound 36 pound 39 pound 18 pound 5 pound 30 pound 16 pound 65 pound 27 pound 63 pound 20 pound 8 pound 52 pound 44 pound

This retailer, deducted \$ profit is. The average two been profit on sponsible cannot to ences. Total \$ to-day the per 100 less than hogs, as the best corn when each cats, and lower. slaughterer ent parts persons." From it would be butchers a unprofitable examination do not fa quoted inde It appear ment in a days, the 29.6 per e labor in e the Lutch twice a we invested he that he on the ave remembered he sells nut food stuffs On careful good large ers' money not to the The state farmer less to raise ho consumption T knows that uluous in the summer howe a very wro high prices handed out

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**Is the Farmer Responsible for High Prices?**

The attempt recently made by John H. Schofield, secretary of the Master Butchers' Association of America, to shift the responsibility for the high price of meat in the retail market on to the shoulders of the farmer is an instance of how city people are led to place the responsibility for the high cost of living on the farming community. The American Department of Agriculture recently made an analysis of beef prices and found that on some cuts retail butchers charged 300 to 750 per cent. above cost. In refuting these figures, Mr. Schofield attempts to show that the retail butcher is merely making starvation wages and incidentally shifts the entire blame on to the farmer. Here is the way he goes about it.

“Let us take a steer weighing 600 pounds and costing 8 cents a pound. The retail dealer gets the following prices for the steer:

	Cents.
35 pounds porterhouse .....	20
56 pounds sirloin steak .....	17½
39 pounds round steak .....	12½
18 pounds rump roast .....	12½
18 pounds heel of round .....	10
5 pounds flank steak .....	15
34 pounds prime rib roast .....	17½
16 pounds blade rib roast .....	12½
65 pounds plate meat .....	5
27 pounds neck .....	5
63 pounds prime chuck .....	10
20 pounds prime shoulder .....	15
8 pounds top shoulder .....	8
52 pounds shank .....	3
14 pounds suet and trimmings ..	3

“This brings in \$11.84 profit to the retailer, and then after he has deducted \$2 for shrinkage, his gross profit is \$9.84 on the whole carcass. The average market will not sell over two beefs a week, making a gross profit on beef of \$19.68. Who is responsible for the high prices? We cannot tell, but we can draw inferences. Two years ago live hogs were sold at \$1.40 per 100 pounds, while to-day they cost from \$8.50 to \$9.10 per 100 pounds. It costs the farmer less than 2 cents a pound to raise the hogs, as the farmers do not feed their best corn to them. The time was when each butcher slaughtered his own cattle, and at that time prices were lower. The butchers who are to-day slaughtering their own cattle in different parts of the country are prosperous.”

From the foregoing figures we would be led to believe that many butchers are carrying on a decidedly unprofitable business. A little closer examination, however, shows that they do not fare so badly as the figures quoted indicate.

It appears that from a \$10 investment in a beef, which is sold in three days, the retailer makes a profit of 20.6 per cent. not charging for his labor in handling it. In other words, the butcher turns over his capital twice a week and for every \$100 thus invested he makes \$20. But it is said that he only sells two beefs a week on the average market. It must be remembered that in addition to beef, he sells mutton, pork, hams, and other food stuffs too numerous to mention. On careful figuring, it looks as if a good large percentage of the consumers' money goes to the butcher and not to the farmer.

The statement that it costs the farmer less than two cents a pound to raise hogs was intended for city consumption. Any sensible man knows that such a statement is ridiculous in the extreme. The city consumer however, is often led to take a very wrong view of the prevailing high prices by such sophistry as that handed out by Mr. Schofield.

**Advertising the Farm**

E. T. Eaton, Colchester Co., N.S. As a class we farmers do not advertise. The business men in the city has been quick to see the benefits

of advertising and many large businesses have been built up through good advertising. Advertising which is used to such good purpose by the business man in the city can be used just as well though perhaps in a slightly different manner, by the business farmer in the country.

There are many ways in which the farmer can advertise. The city man advertises his business under the firm name. The farmer should advertise his farm. Hence one of the first points in advertising is to have a name for your farm. Other means of advertising are the appearance of the farm, letter heads and printed envelopes and to a certain extent, in special cases, the use of newspaper advertising. The appearance of the man and his team also makes an impression on his customers.

A good product, however, is always the best advertisement. The farmer who sells the best and is very particular in the marketing of the products of his farm will soon gain a reputation that will sell everything on his farm at good prices before he has ever grown it. It will pay any, or all of us, to sit down and carefully figure out this question of advertising and see if we are carrying on our business in the most up-to-date way, and if we are obtaining the greatest possible returns. If we feel that we are not getting as much out of our farms as we should when we get to the bottom of it, it may be that all we need is more good advertising.

**Fertility Wasted in Cities**

J. H. Caldwell, Carleton Co., Ont.

Enormous waste is going on constantly in the towns and cities where the produce of the soil is rolling in by car and ship load lots from farms all over the country. This fertility of the soil which is pouring into the cities daily by various avenues is washed into the sewers and thence into the streams. Here it pollutes the waters of our rivers lakes and streams, bringing sickness and death in its wake.

Something has been done by the Government to stop the pollution of the streams, but as far as I am aware no effort has yet been made to return to the soil a tithe of what is removed annually. The soil must inevitably grow poorer year by year. The Government or individual who could successfully devise a plan or scheme to convey this waste back into the land from whence it came, would deserve the gratitude of this and future generations.

In one of the large cities I have seen men and women almost famishing for water and unwilling to drink the water from the taps as the water was contaminated from sewage of a city a short distance away. The only action taken by the government was to boil the water before using.

**Cures Hay in the Coil**

G. A. McCullough, Russell Co., Ont.

We start to cut our clover before the lossors become brown. In clover we use a hay tedder after the mower and usually put it up the same day. This is left in the coils for two days, or perhaps more, if it is very soft, and then turned out to dry and drawn in. We use some alfalfa this way in last year, having it three days and if it came out this spring in good shape. Towards the last of the season and especially with timothy hay, we sometimes draw in without coiling.

We do not use a hay tedder, but there are a good number in this district. Most farmers here use the ordinary rake and load by hand, treating their hay much the same as we do. Rules cannot be laid down for haying as weather conditions often change plans and one must adapt himself to the circumstances.

Renew your subscription now.



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Ease of Operation, Efficiency, Sanitation, Durability,

**The De Laval**

THE DE LAVAL SEPARATOR CO.

175-177 William St.

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**Cheese Makers**

AND

**Butter Makers**

Your attention is called to **OUR SPECIAL SUMMER OFFER FOR CHEESE MAKERS AND BUTTER MAKERS.** A LITTLE EFFORT on your part will result in your being able to **ADD SEVERAL DOLLARS TO YOUR SUMMER INCOME.** Is every patron of your factory taking Farm and Dairy? If not, why not? Perhaps you could induce them to subscribe. They would then be put in close touch with all that is live and up-to-date in dairy matters this summer. No better way to educate your patrons to the best way to care for their milk, than to induce them to read Farm and Dairy. Many makers are working for this end this season, realizing that they themselves will benefit thereby. Get into line to-day. We will gladly send you samples free for distribution at your factory. A most liberal cash commission on each new subscription.

CIRCULATION MANAGER,

**FARM AND DAIRY**

PETERBORO, ONT.

## They Fear Your Common Sense

You are right to use common sense in buying a cream separator. Common sense says "The greater the skimming force, the faster and cleaner the skimming. The fewer the parts, the more durable and easy to clean." You have reason to feel indignant when agents for common, complicated cream separators, who fear your common sense, try to hide these plain facts by belittling your judgment. These agents cannot hope to sell their common machines if they admit these facts, for they cannot admit them without confessing that

### Sharple's Dairy Tubular Cream Separators

are the best. Tubulars contain neither disks nor other contraptions, yet produce twice the skimming force, skim faster, skim twice as clean, wear longer and wash several times easier than common separators.



THE SHARPLES SEPARATOR CO.  
TORONTO, ONT. WINDIPLO, MAN.

## ALFALFA IN AMERICA

The growing, harvesting and feeding of alfalfa is fully discussed in "Alfalfa in America," a book by Jos. E. Wing. The author has been growing and feeding alfalfa for many years. In his book he sets forth the knowledge of the crop which he has gained by his successes and failures with alfalfa on "Woodland Farm."

Many sources of information have been drawn upon to make this book complete in every detail. All points which the would-be alfalfa grower should know have been treated. An outstanding feature of the work is the story of how Mr. Wing made a poor farm productive and profitable by means of alfalfa. All who wish to be well informed on all phases of alfalfa growing should have a copy of this book. Price through Farm and Dairy, \$2.00.

## Creamery Department

Butter makers are invited to send contributions to this department, and questions on matters relating to butter making and to suggest subjects for discussion. Address letters to Creamery Department.

### Pointers on the Care of Culture

G. G. Poulton, Chief Dairy Instructor for Eastern Ontario.

"Part of an address before gathering of dairymen in Peterboro recently. There are many things that must always be taken into consideration when using cultures. Weather conditions are a considerable factor. Temperature has much to do with the effectiveness of the starter. If the milk in cheese factory practice, or cream, if it be at the creamery, be at a low temperature, then a higher seed (more culture), is necessary, for the organisms will not work and develop lactic acid as rapidly as they would had the milk or cream been at a higher temperature. If the milk or cream at the time of adding the starter is high in temperature, then a low seeding (less culture) is indicated.

In cheese making, it is advisable to use a half of one per cent. of starter; for butter making, use 5, 10, or 20 per cent., as conditions warrant.

PROPAGATE IT EACH DAY.

The mother culture that is carried from day to day should be kept in a separate vessel. For this purpose glass is recommended. A common fruit sealer answers nicely. Many take this mother culture out of the bulk of the culture each day. We recommend that it be kept from the first seeding each day. A butter maker usually has to make his culture early in the day. By taking it then and having a small quantity he can control it much better. If left until later, as is commonly done, it may get too high in acid and one is in danger of losing the culture through having it go off in flavor.

Where cultures are used, and they should be used generally, there is nothing of more importance than the carrying of this culture from day to day. It would seem that makers are not careful enough in handling their cultures. They do not seem to realize the need for special care, and that other bacteria in the culture or in the butter are constantly around and readily gain access to the butter if permitted. One should always go to the culture with clean hands. Sup-

posing one had been cleaning a horse and then went to the culture, it is quite evident that there would be plenty of cause for the flavor going off.

The reason we advise taking new, fresh milk for making the culture, is that older milk is liable to contain spores. These spores are not killed by heating to 185 degrees, hence these spores if present are liable to cause trouble. Fresh milk is not liable to have these spores. One should never insert a thermometer or dipper into the culture without it having first been sterilized. If unsterilized thermometers, etc., are used in the culture, there is bound to result an undesirable seeding—a mixed crew. Everything used about the culture must be sterilized. It is well to keep a special thermometer and a dipper to use only for the culture. Many makers allow their culture to go off in short time due to lack of care in this particular.

If one would have a uniform crop (culture) he must give special attention to the mother culture and to the temperature at which it is kept. Uniformity in a culture should always be aimed at so that there would be so many organisms to each drop of culture. With a uniform culture used under uniform conditions, uniform results are bound to follow.

### Cream Trade to the States

W. Waddell, Middlesex Co., Ont.

In the latter part of March we began to ship cream to the Port Huron Creamery Co., Port Huron, and have continued to ship more or less every week since. We are now shipping about 10 cans of cream a day containing eight gallons each, valued at about \$120. The cream tests an average of 50 per cent., for which we receive 30 cents, a pound of fat net, less every week in which it is shipped. The Port Huron Creamery Co. find the cans, paying the duty and all transportation charges. This nets up at the present about three cents more per pound of butter than we would receive if churned and sold as butter. Our method of handling this cream is to heat the cream as soon as separated to 135 or 140 degrees and put it in the cans. One ship on a train leaving our station at 2:30 p.m., and reaching Port Huron on our hour later. Where cream is immediately cooled we have had no difficulty with quality, the cream reaching Port Huron in good condition. We might have shipped much more cream but could not get cans, so much cream being shipped that it seems almost impossible to get enough

cans. There are times when we can get a higher price than we are receiving, but we find that most persons offering a higher price, take the cream only in hot weather. We find it cheaper to heat cream than to receive it. We are making both cheese and butter, but owing to the low price of cheese our make is small. If there is no change it is quite likely we will soon quit cheese making altogether.

### Satisfaction with Scales

S. R. Brill, Bruce Co., Ont.

In making the Babcock tests of cream samples we have used the scales for the past two seasons and find them very satisfactory. In high testing cream the scales will give the patron justice. The pipette favors the low tests or poor cream, which we, creamery men are doing all we can to avoid.

Take the usual quantity, 18 grams, 30 per cent. cream by weight, and the temperature at which it is kept. The measure at least one quarter of an inch over the mark. The same quantity of very low testing cream will fall short about the same.

The evidence that the scales are used by the man with the rich cream, using and the man with the poor staff is getting more than his rights through the rich cream of the other fellows sticking to the scales.

We find when our teamsters are careful and the scales are used in testing that the overrun will not vary over two or three per cent., at the very most during the whole season.

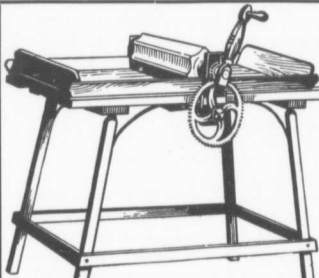
I find after a little practice that the scales are the quicker method of testing. Our Babcock machine holds 24 bottles, and the usual time taken to complete this number of tests and do it accurately is 50 minutes. I would urge upon creamery men, by all means use the scales.

### Four Good Creameries

In addition to cheese factories, last year I visited four creameries, Fenelon Falls, Harwood, Oakwood and Cheno. Those creameries had a very satisfactory condition and produced a good quality of butter. All four were operated on the cream gathering system, only one using the individual cans. This latter system gives the butter maker much greater chance to advise his patrons regarding the condition of their cream, consequently a better quality of cream is usually obtained. With the tank system, the cream handler should be capable of judging and giving the patron advice as to the care of his cream. Many patrons of creameries should give more attention to the washing of their separators and cooling their cream. The latter makes a competent man and doing their best to turn out fancy butter.—D. J. Cameron, Dairy Instructor for the Lindsay district, Ont.

A repetition of last year's success was made on Dominion Day, when over 300 people, mostly patrons of the Adam Creamery, Adamsville, Que., gathered in the lovely grove in the rear of the factory for a picnic. A good orchestra from Montreal, which Mr. Adams had thoughtfully provided, rendered some choice selections. Mr. Trudel, of Ottawa, addressed the patrons on the Care of Cream, and Mr. C. F. Whitley spoke on Cow Testing, instancing many large increases in the patron advice and fat made in that district since the commencement of keeping records. The creamery is making over a ton of butter a day, but even this output scarcely supplies the increasing demand for the famous picnic and special boxes.—C. F. Whitley.

Renew your subscription now.



## THE NATIONAL BUTTER WORKER

THE NATIONAL MFG. CO., Ltd. - Head Office, OTTAWA

FACTORIES:—Ottawa and Brockville

BRANCHES:—Regina, Sask., Edmonton, Alta., Montreal, N.B.

Write to us for full particulars; we will gladly give information and send our Booklet Free on request

THE Butter Worker made for Practical Butter Makers—that's the National! The National Butter Worker, built entirely of hard wood, is unquestionably the most practical butter worker sold in Canada to-day, and is in use in the leading dairies of the Dominion. Every dairymen and farmer who makes butter owes it to himself to know more about the superiority of this practical device—it's a matter of dollars and cents on the profit side of his books, to own a National.

### FOR SALE

TWO CENTS A

WANTED—Cheese  
son, well  
Dairy, Peter  
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Write Circular  
Dairy, Peter  
for your pat  
application

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Wanted—A first  
the business of  
Marshall Est  
CHEESE MAKE  
four years' ex  
saler. None of  
E. S. Phelps  
FOR SALE—Iron  
Rails, Chain,  
etc., all sizes,  
stating what  
Wash and Met  
treat.

### Cheese Department

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

#### Makers' Certificates for 1911

G. A. Putnam, Director of Dairy Instruction, Toronto, Ont.

I submit herewith such information as the Department of Agriculture thinks it well to give out at this time as to the basis upon which certificates will be granted to cheese makers and butter makers in Ontario in 1911. There are some minor details which have not yet been decided upon and which cannot very well be settled until later in the season. Below we give copy of legislation governing the granting of certificates.

"On and after January 1st, 1911, no person shall act as chief maker in any creamery or cheese factory who does not hold a certificate of qualification, said certificate to be issued as follows:

(a) "By the Dairy School of the Ontario Agricultural College, or the Eastern Dairy School.

(b) "By the Minister on the general grounds of competence, as recommended by an advisory board to be composed of the Chief Dairy Instructors, the President of the Dairywomen's Association of Eastern Ontario, the Dairywomen's Association of Western Ontario, and the Director of Dairy Instruction.

"Provided however that upon the written authority of the superintendent of either dairy school any person may be allowed to act as chief maker for a period not to exceed two years after he has passed the examinations in the dairy school."

**EFFICIENCY REQUIRED.**  
Efficiency in practical work will be required in all cases. Both in the granting of certificates to those who have been in full charge of factories as well as those who take charge of factories for the first time after the beginning of 1911. The Department does not intend to be at all exacting in the requirements for certificates at the introduction of the system. Practically all who have had charge of a factory or creamery prior to 1911 will be granted cheese makers' or butter makers' certificates. If a man has shown gross carelessness and in competency he cannot expect that the advisory board will recommend him for a certificate.

To those who will not not have had charge of a factory up to the end of 1910 we beg to state that while provision will be made for the granting of certificates to those who have not taken a dairy school course, but have demonstrated their ability as assistants in factories, it will be to their best interests to attend the dairy school at either Guelph or Kingston.

#### FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

WANTED—Cheese makers the coming season to sell subscriptions to Farm and Dairy, Peterboro, Ont. credit each subscription for each subscription taken. Write Circulation Manager, Farm and Dairy, Peterboro, Ont. for sample copies for your patrons. Samples sent free on application.

WANTED—A first class cheesemaker for the balance of the season. Apply to Marshall Rothwell, Main St., Peterboro, Ont.

CHEESE MAKER WANTED—Three or four years' experience; good worker and sober. None other need apply. Address, E. S. Phelps, Birmam, Ont.

FOR SALE—Iron Pipe, Pulleys, Belting, Ralls, Chains, Wire Fencing, Iron Tools, etc., all sizes, very cheap. Send for list, stating what you want. The Imperial Wire and Metal Co. Queen St., Montreal.

All who have not had full charge of a factory prior to January 1st, 1911, will require to be qualified to test milk by the Babcock method.

**PRACTICAL EXPERIENCE NECESSARY.**  
No person will be given authority to take charge of a dairy school course unless he has taken his one year's practice and passed the examinations, without having had at least one year's practice in a cheese factory or creamery. Those who have had this one year's experience and have taken a satisfactory standing at a dairy school may be given authority by the superintendent of the school for one or two years. If during this time the superintendent concerned and demon-

Above all, we wish the cheese makers of the province to remember that the Department does not intend to make the granting of certificates a hardship or injustice to any one. All those who manifest a deep interest in their work and who have average ability, will be certain to be classed among those to receive certificates. The registration of factories was, it is some suspicion by a few of the dairy-men, not so much a matter of the Department has been too exacting in this matter and the results have failed to properly equip their factories to place the improvements required for factory sanitary condition have in



An Up-to-date Cheese Factory in Peterboro Co., Ont. owned and operated by R. H. Little. This factory is made of hollow cement blocks. Most of the work of construction was done by Mr. Little. To the left can be kept clean with a minimum amount of work. Mr. Little and his son are

strate their ability as makers, to the representative or representatives of do so.

If it is thought necessary in special cases, the advisory board will ask for a statement from employers regarding the efficiency of employees.

We would advise all those young men who have not yet had charge of a factory and wish to secure certificates to make a special study of their business and be careful in their methods as their chance for receiving a certificate will depend to some extent upon the ability which they show as helpers or assistants. They should also plan to take a dairy school course.

practically all cases been induced to do so.

**INCOMPETENT MAKERS MUST GO.**  
We are confident that the granting of makers' certificates will improve the position of the makers and will do away with the unfair competition from incompetent men who, in the past, in order to secure a position, have offered to make at a ridiculous low price.

It may be remembered that in the giving of instruction to makers and in the registration of factories the aim of the Department has always been to place the dairy industry of Ontario upon a sound and permanent basis, and in the granting of makers' certificates the same object will be our guide.

### Dairy Notes

The stuffing of cheese is not a common practice in Canada. During the last four or five years there have been a few lots of this character delivered in Montreal each year. One party was prosecuted last year. This was the first case under the new Act. The case mentioned in Farm and Dairy of July 7, is the second and the first that we have heard of this year. We feel pretty certain that when the new Act in regard to this matter becomes better known, the makers will not take any chances by putting inferior curd into their cheese.—Geo. H. Barr, Chief of Dairy Department, Ottawa.

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

### FLIES ARE DEADLY

Keep Them From Your Stock

### COOPER'S FLY

### KNOCKER

Does this Safely and Cheaply

NO TROUBLE NO WASTE NO MILK TAINTED

SOLD BY ALL HARDWARE MEN

and by G. A. GILLESPIE, PETERBORO, ONT.

### Well Drilling

I drill a 4 1/2 inch hole; work done summer or winter; pumps and fixtures always on hand. I guarantee water. Fifteen years experience. Eight gas-line and steam drilling machines. Time given if needed by notes. Worth prices this year to write for terms and your white to see.

ARTHUR CAMPBELL  
L'Original, Ont. Phone No. 6

## BIG REDUCTION in DAIRY SCALES

### Prices Almost Cut In Two

#### No Orders Filled After 1st August



A sudden break in the market has enabled us to buy 1,000 CHATILLON'S IMPROVED SPRING BALANCE MILK SCALES which we are willing to sell to every trader of this paper at a saving of 50 cents on the dollar. These Milk Scales you can tell exactly what profits you are getting from each cow, or if you are keeping any cow at a loss. You can't afford to be without a Chatillon Scale. Every Scale bears the Government Stamp, certifying accuracy. The Milk Scales are made in two different sizes, the Household Scales in three sizes.

- 60 lb. Circular Spring Balance Milk Scale, marked in decimals, and always sold at \$7.00. Our Special Price ..... \$4.50
- 30 lb. Circular Spring Balance Milk Scale, marked in decimals, and always sold at \$5.00. Our Special Price ..... \$3.50
- 25 lb. Straight Balance Household Scale, marked in half pounds, and always sold at 75c. Our Special Price ..... 58c
- 50 lb. Straight Balance Household Scale, marked in one pounds, and always sold at \$1.10. Our Special Price ..... 89c
- 40 lb. Straight Balance Household Scale, marked in half pounds, and always sold regularly at \$1.25. Our Special Price ..... 75c

This is a special offer and will be positively withdrawn after 1st August. Send us your order for whichever scale you need at once.

CATALOGUE OF DAIRY SUPPLIES FREE

## W. A. DRUMMOND & CO.

177 King St., East, TORONTO







PUT away all sarcasm from your speech. Never complain. Do not prophesy evil. Have a good word for everyone, or else keep silent.

—Henry Ward Beecher.

# MISS SELINA LUE

A NOVEL OF GOOD CHEER, BY  
MARIA THOMPSON DAVISS

Copyright, 1909, The Bobbs-Merrill Company  
(Continued from last week)

ON the other side of the street, only a few hundred yards away from the cool door of the grocery yawned and the top branch of the hackberry beckoned in a friendly little breeze. Miss Selina Lue hurried her steps and as she walked she waved the turkey-tail in vigorous encouragement of the tiny zephyr. She was generous in proportion was Miss Selina Lue, tall, broad and strong, deep-bosomed, and flashing eyes, though with a spirit of such cateness that one might almost read as one ran.

At her door she was welcomed with enthusiasm. Miss Cynthia Page stood on the top step, in her arms a baby who was uttering a protest against the world in general, and Miss Cynthia in particular, in such a staccato volume of voice that his size could but be a surprise to the beholder. On the floor his exact counterpart, except in the matter of hair—that of counterpart being of the tone known in some walks of life as red-gold but called on the bluff "carrots"—sat with solemn determination at the hem of Miss Cynthia's white linen skirt with grimy hands. Just behind him a pink-clad little bunch had succeeded in squirming between the pickle barrel and a large bushel basket of snap-beans, and only the hind quarters and ten pink toes of the explorer evidenced her whereabouts. From a certain ecstatic wave of one leg it might be suspected that a find had been made and was being secretly and rapidly consumed. In the middle of the floor another infant lay prone, with legs and arms waving frantically, resembling nothing more than an overturned beetle helpless in its appeal to be righted before the world. And from behind the counter on the left there issued a voice, an accompaniment to the Flairty and Cynthia's arms that could not but impress the hearer. It was no fretful cry of howl of a soul in torment, hungry, hot frightened with a pain all over and in spots.

"Dearie me!" exclaimed Miss Se-

lina Lue. "You all seem to be upset!" And as she spoke she took the wailer from Miss Cynthia and reaching for Carrots on the floor, tucked him under the same arm with his



The Spoon Descended into the Mouth of Blossom

brother while she draw out by one linen the explorer and revealed the treasure, found to be a snap-bean, now partly consumed. The beetle shared the hollow of her arm with the explorer, but the voice from behind the counter wailed unafraid.

"Miss Cynthia, honey, please pick up Clemmie from behind there and bring her on back here to the boxes as of stalls in a training stable."

"Whatever did you let them out for? I am afraid you was pestered to death with 'em."

"Oh, Miss Selina Lue, they all began to cry at once and I didn't know what to do," apologized Miss Cynthia as she struggled to the back of the

store with the voice in her arms still making itself heard though the sight of Miss Selina Lue had brought it down a note or two.

"Oh, that's all right; crying's good for 'em, the darlings," said Miss Selina Lue as she deposited the wriggling load on the floor.

There was a large south window at the lack of the grocery and a morning-glory vine peeped in on one side and clutched with little tender fingers at a group of sides of bacon that hung on the wall. A large yellow cat stretched on the sill in the sun, which poured in over him to the floor.

Ranged back from the heat, but in the cool breeze, were five empty soap-boxes, capacious and clean, with calico cushions stuffed down each back. Miss Selina Lue shok out each cushion and deposited thereon a baby. Carrots came last and was enthroned with care on a "chiny-blue" cushion.

"Ain't he too sweet on that blue kiver?" said Miss Selina Lue as she smoothed the flaming kinks. A tender hand ran over each bobbing head and peace reigned in the River Bluff Grocery, whose back regions were given over to a hospitable day nursery, an entirely original and also utterly unremunerative lines by its owner. With Miss Selina Lue to love was to minister and she never dreamed that she was tending widely-discussed and little-practiced philanthropic measure.

"Miss Selina Lue, you are a wonder! How do you ever manage with them all the time?" ventured Cynthia as she stood by disheveled and panting. Her cheeks were shell-pink and warm, little gold curls clung to her damp forehead. Her violet eyes were wide with admiration at Miss Selina Lue's generalship, but were given a desperate cast by a huge smudge on the side of her nose which had by accident tried conclusions with that of the vocally strong Clementine. Her hat had been pulled to a rakish

she rolled up her sleeves and cleared the deck for action by drawing the boxes into a close semi-circle around a three-legged milking-stool, "you can see how good I've got 'em trained, the darlings. I see up this bowl of oatmeal outen that as spills outen the packages what bust and I pou on a good dose of Charity's new milk, which is that of real human kindness, if she is just a spotted cow."

As she talked she seated herself on the stool and dipped out a spoonful of the sticky perridge dripping with milk. Instantly five or six pink, toothless or partly toothless mouths popped open and five bobbing heads became rigid and five roly-poly necks craned. The moment of suspense was keen. Presto! the spoon descended into the mouth of Blossom, the explorer. Her ecstatic gurgle had four anticipatory echoes. Again the pink caverns descended and the poised spoon swayed and came into the rosy tips of Clementine, who swallowed her portion with the remnant of her last job. The echoes gurgled again and represented open mouths at attention.

"Seems like," said Miss Selina Lue, "they all swallow one-another's dinner outen it all. If grown-ups would just show one another a good luck they could get a heap of satisfaction from it, I say. Now, ain't they good, and just as patient, a-waiting their own turn?"

"Indeed they are just a cunning nest of baby birds, Miss Selina Lue, and you are the mother bird with the worms the nicest sort of worms. —you,"—Miss Cynthia hesitated, trying to give coherence to a thought Miss Selina Lue had heard voiced before,— "if you were being mother bird to your own you couldn't!"

"Miss Cynthia, honey," said Miss Selina Lue as she scraped the last drop of milk into the spoon and skillfully administered it to the nodding head of Flairty, the brother of Carrots. "I intend the good Lord to intend that a mother should come into this world with every child, but sometimes she don't git lorned when it does; and sometimes—sometimes the mother is borned and the child ain't there. The mother job is one that ain't cut out to suit everybody and then it fits have got a duty laid on 'em strong, even if it is just being a kinder soul-mother. Don't let Clemmie fall and cut her head on the edge of her box! She is nodding so and I have to ease down both the Flairties, who is plumb gone. Thanky, child, they are all safe now and I can git to work. Seems like my heart is at rest when I've got 'em asleep in the soap-boxes. I sometimes wonder if the Lord don't feel the same way about us grown-ups when he sends us up in our beds. But then when He's got us all safe asleep the folks over in Chiny wakes up and begins their divilities, so I reckon the Bible is true when it says He neither slumbers or sleeps."

## CHAPTER II.

### THE NEW SOAP-BOXES.

"Vanity in a man is like a turkey-gobbler a-strutting in November."  
—Miss Selina Lue.

"Miss Cynthia, honey, it's a good thing you come down to see me this morning this time. When you are in town on one of them week-end-an-begins with Miss Evelyn sweet as she is, I don't rest calm as I might, which she was fed up on her soap-box. I bump your head or swallow a fly or something, if you are outen my sight."

"You mean you are sure I will have the strength of mind to refrain from taking in the camel, but are uneasy about seeing the gnat in time, Miss Selina Lue," said Miss Cynthia, as she stood smiling before the grocery door where Miss Selina Lue sat, bus-

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Fig. 2.—H

Much to either on good and doings, h bunch, th doing." "How Maud's t Cynthia door for "The l- cept Cle strange t fore yest- cockleach- just as patient, a-waiting their own floor by is well th with her got stuck —no matter —a clothes- from goin down with book. It right-to- (Co-

## The Ho

S. B. SH

(Cont- HOME- When c- for home- purchase a made vess- ing. Any a wash boi- to permit- jars or car- serve the sort of vess- have what i- on which to cooking. W- tinned-gi- strips of wo-

## Woman

This kitchen woman's hom work at the article s



ventions. Har finished. All r- You can have two new subsc- at \$1 each. G- work accor- subscribe. It w- ily this can be Manager, Farm



de engaged in sorting over a basket of June apples.

"Child, I can't always help but have more respect for a great big, sinful camel than a mean little, busybody goat that pops in your mouth and he's there. And of the two I choose the camel to swallow, if swallow I must. But, dearie one, I've got too

purpose. If glass jars are set flat on the bottom of the vessel in which they are to be cooked they are apt to break during the heating. The vessel cover, preferably tin, to be kept in place while the cooking is being done. This cover retains a large part of the steam to aid in the cooking process. Fig. 3 shows a home-made outfit that can be used in this operation.



Fig. 2.—Home-canned Fruits and Vegetables in Different Types of Jars

Much to think about to watch out for either one, and I reckon them as keeps good and busy is protected from wrong hands, big or little. Set down, honey-bunch, tell me what you've been a-doing."

"How are the babies, and is Ethel Maud's thumb well again?" said Miss Cynthia as she seated herself in the door for a chat.

"The Ladies are blooming fine, except Clemmie at something that was strange to her and was sick day before yesterday. I hope it wasn't a cockroach, but I have my suspicions from seeing two legs of one on the floor by her. Ethel Maud's thumb is well but we like her had a time with her and a pea in her nose what got stuck up and wouldn't come down no matter how she snorted. But I put a clothes-pin up above it to keep it from going further up and coaxed it down with a hair-pin and a button-hook. It swelled some but she's all right to-day."

(Continued next week.)

**The Home Canning of Fruits and Vegetables**

S. B. Shaw, Agricultural College, North Carolina.

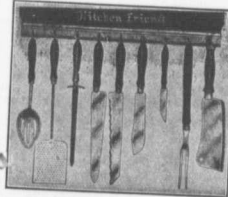
(Continued from last week.)

**HOME-MADE CANNING OUTFITS.**

When canning fruits and vegetables for home use, it is not necessary to purchase an expensive or specially made vessel in which to do the cooking. Any flat-bottomed vessel, such as a wash boiler, ham boiler, preserving kettle or bucket, that is deep enough to permit of being covered after the jars or cans are placed inside, will serve the purpose. With whatever sort of vessel used, it is necessary to have what is known as a false bottom on which to set the jars or cans while cooking. Wire netting made of medium-sized galvanized wire or narrow strips of wood, may be used for this

**Woman's Kitchen Friend**

This kitchen rack should be in every woman's home. You cannot afford to do your work another day without it. All the articles shown are household con-



veniences. Handles are black, and well finished. All regulation size and length. You can have the FREE, for a club of two new subscribers to Farm and Dairy, at \$1 each. Get the boys and girls to work securing two of your neighbors to subscribe. It will surprise you how easily this can be done. Address Circulation Manager, Farm and Dairy, Peterboro, Ont.

**APPLES**

Acid varieties are best for canning. Select firm, well-ripened fruit. Peel and quarter. Cut out all the core and all bruised or decayed spots. Pack firmly in jars and fill entirely full with fresh water. Use new rubbers,

21 hours. On the second day, place in vessel as on first day and boil 25 minutes. Remove, let stand 24 hours, and cook on third day as directed for second day.

**BLACKBERRIES.**

Should be ripe, but firm. Carefully remove all stems, leaves, trash, soft and imperfect berries. See that all fruit is clean. Pack firmly without mashing. Fill jars almost full and add four level tablespoons (about two ozs.) of granulated sugar, then fill jars entirely full with fresh water. Follow this in all the recipes that come hereafter. Fill vessel with cold water to a depth that will bring the water up an inch or two on outside of jars. Put on cover, place on stove and bring to boiling point. Boil 5 minutes. Remove and let stand 24 hours. On second day place in vessel as on first day and boil ten minutes. Remove, let stand 24 hours, and on third day cook as directed for second day.

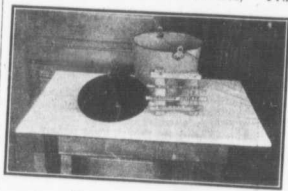


Fig. 3.—Home-Canning Outfit

put tops on and place jars in cooking vessel. Fill vessel with cold water to a depth that will bring water up about an inch or two on the outside of the jars. Put on cover, place on stove and bring to boiling point. Boil 10 minutes, seal tight and continue boiling 15 minutes. At the end of this time remove jars and let stand

21 hours. On the second day, place in vessel as on first day and boil 25 minutes. Remove, let stand 24 hours, and cook on third day as directed for second day.

(Continued next week.)  
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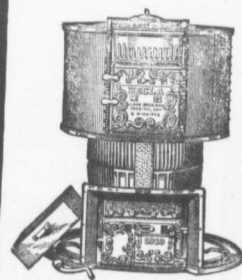
We are not going to talk about the big features of the "Hecla"—the FUSED JOINTS, that keep the house free of gas and smoke—or the STEEL RIBBED FIREPOT, that saves one ton of coal in seven.

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A DUST FLUE, that actually carries off all dust so that you don't look as if you had fallen in the flour barrel after you shake the furnace.

A DAMPER REGULATOR, by which you can regulate the drafts and checks without going into the cellar.



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**COOKING IN GLASS JARS.**

After the fruits or vegetables are prepared for canning, pack them firmly in the jars to within about half an inch of the top and fill entirely full with fresh, clean, cold water. New rubbers are then put in place with the tops put on, but not sealed tight. The jars are then placed upon the strips of wood or other support on the bottom of the cooking vessel. The vessel is then filled with cold water to a depth that will bring it up two or three inches on the outside of the jars. The vessel is then put on the stove ready for cooking to begin.

It is difficult to give absolute rules as to the exact time of boiling for each fruit and vegetable, from the fact that so much depends upon the ripeness and the variety. As a general rule, when canning fruits, let the water start to boil and continue boiling for ten minutes. At the end of this time seal the jar tight, and continue boiling for 20 minutes. In canning vegetables, let them boil 15 minutes before sealing tight, and after that continue boiling 45 minutes. With mixed vegetables, as corn and beans, let them boil 15 or 20 minutes before sealing tight, and after that continue boiling 75 minutes.

After the jars have been boiled the required time remove them from the vessel, and set aside in some place where they will not be exposed to a draught. A draught of cold air coming in contact with the hot glass might cause some of the jars to break. Allow the jars to stand for 24 hours. At the end of that time again place them in the cooking vessel as on the first day. Fill the vessel with cold water, as directed on the preceding day, and boil fruit 30 minutes, vegetables one hour and 30 minutes. After cooking the required time this second day, again remove jars as previously directed, and after standing another 24 hours place exactly as directed for the second day. After the jars have cooled from this third cooking they may be put in any convenient place and kept until wanted for use. Some products may be paper. Always keep canned goods in some darkened place out of the direct light. If no convenient place of this kind is handy, wrap the jars in dark paper. Always keep canned goods in a dry place. One way to be remembered in this method is that after the jars have once been sealed tight do not again loosen the top or unseal until the contents are to be used.

**OPENING JARS.**

Jars of fruit and vegetables are sometimes hard to open. Run a thin knife-blade under the rubber, next to the jar, and press against it firmly. This will usually be enough air to loosen the top. If it does not, place the jar in a deep pan or kettle of cold water, heat to boiling point and continue boiling for a few minutes. The jar will then open easily.

**DIRECTIONS FOR COOKING IN GLASS JARS.**

The following directions for canning apply only to pint-size jars. If quart jars are used, increase the time of boiling, making it one and one-half times that given for pints.

## The Upward Look

### Overthrowing Faults

We all have faults of character. Some of us are afflicted by lack of faith. We feel that we are powerless to do much good in the world, that things—some at least—are against us and that there is but little use in our attempting to do much that we like to accomplish.

Some are the slaves of pride. We know that we think and talk about ourselves too much. We know that our little successes puff us up unduly, that we antagonize people by our overbearing manner, that our desire to be thought well of leads us to commit many foolish acts. And yet, though we struggle against it, pride retains its hold upon our wills.

There are others of us whose quick tempers and sharp tongues are the cause of many a downfall. Even our dearest friends and loved ones suffer through our weakness. We offend those whom we desire to please and drive away those whose good opinion

and respect we are most anxious to hold. Strive as we may, we seem powerless to keep back the words that later we would take back. Oh! so wilingly, if we could.

Or our faults may consist of selfishness, slothfulness, untruthfulness, too ready compliance with our desire to have a good time. Whatever our defects may be, we recognize their presence. We know that they are helping to spoil our lives. We do not seem able to overcome them.

The trouble is because we are not trying in the right way. There is not a defect in our characters that we can not overcome if we will put forth our efforts with true earnestness of purpose and in the right direction. The power we need can be secured from God.

In the first place, we must recognize that the cause of our weakness is Satan, who is a spirit, the spirit of evil. Satan, who is led into many other sins if he could. He is stronger than we are. Thus we are doomed to meet with certain and continual defeat as long as we strive to overcome our faults by means merely of our own good resolutions and our own will power. Satan laughs at them. As long as we strive to combat with the evil One unequalled, we are carrying on an unaided fight. "For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of this world, against spiritual wickedness in high places" (Ephesians, 6:12).

Who can expect, unaided, to overcome such a combination of evil? In the second place we must recognize that God is also a spirit, the spirit of love, and that He is greater than we are. He is greater than Satan. Furthermore, we must never forget that God loves us, that He gave His only begotten Son that whosoever believeth in Him should not perish, but have everlasting life. (St. John, 3:16).

All that we need to do, therefore, is to ask God for the power that we need. But we must ask earnestly and persistently. Some moments spent once a day in half-hearted prayer will not be sufficient. We must pray every time we feel the approach of the tempter. For we will be quick to recognize him and flee from him. A dozen times a day, if need be, we can if we will throw out our heart in brief prayers to God for the help and strength that we need. Nothing else will do. When we forget to turn to God, the devil turns to us. When we call for God, the devil flees from us. It is all very simple when we once understand it.

If you will but take God at his word and look to Him to furnish the aid you need, and when you need it, you will soon be surprised at the victories you gain. You will see that you then find how true it is that "With God all things are possible." (St. Mark 10:27)—I. H. N.

### House Flies a Pest\*

The house-fly is too humble, too common a creature to stimulate thought on its origin, use and destiny. We are too concerned, those of us who have time to be concerned, in these questions in their personal relations and the house-fly is dismissed with a word of comment on its power of procreation and possible unknown utility. But the public interest does not always slumber. The mantle of mystery and veil of ignorance have been torn off, and the house-fly stands alone, known and condemned with clear convincing proof that it must be classed with the scourges of man and destroyers of his children. Instead of being the harmless, bright little insect, though annoying by its attentions, it is the embodiment and emblem of filth swathed

with the germs of decay.

No house-fly can be caught indoors or out of doors that is not carrying on its legs and body, bacteria of all kinds and the spores of moulds and other organisms which accompany decay. No living fly is free from germs. Its legs and body, prolegs and wings are covered with small hairs and bristles, so that its legs may be compared to fine fibril brushes; it frequents every kind of an unimagined and leeches itself with the microscopic bacteria and other decay-producing organisms of which it cannot possibly rid itself and flies about a winged and wandering bundle of bacteria.

The chief and favorite breeding place of the house-fly is in the stable refuse, which may sometimes be found to be literally alive with the "maggots" of the house-fly. A single refuse heap will supply thousands of flies; a single, unclosed, and not frequently emptied refuse bin will colonize a house for they breed in incredible numbers in waste and decaying vegetable products which accumulate in the household refuse bin. All decaying and excremental substances, provided the temperature is suitable, serve as breeding places for house-flies, and in these facts lies the secret to the house-fly problem. There are two ways of dealing with a nuisance, the one is to abolish it; the other to render it innocuous.

Refuse bins should be immediately treated. Refuse should be burnt in public and municipal destructors, and it should be made compulsory to keep receptacles closed, and consequently fly-proof. The alternative to render such nuisances innocuous can be accomplished by the provision of darkened fly-proof pits or chambers for the reception of stable refuse, to be frequently and periodically removed. Flies may be prevented from breeding in such refuse by treating it with such substances as chloride of lime or kerosene. By scattering chloride of lime over the refuse after each addition of manure, or by spraying with kerosene (which is not so effective), the flies are prevented, should they have access, from breeding in the excremental or vegetable refuse. But the removal method is the most successful wherever it can be accomplished; and in the case of small stables this is not impossible.

In houses it is not sufficient to notice fly scum on windows and doors, but such foods as milk and sugar, to which flies are especially attracted, and which are more than usually suited for the reception of whatever germs they are carrying, should be carefully covered with muslin. A fly should be regarded in its true light as a winged carrier of disease and decay. The sooner this is realized the more speedily will be the advent of more healthy and less dangerous conditions. Wherever flies abound in such places will refuse and decaying substances be found, and on such occasions it will serve as a disseminator of the germs which are associated with such substances. If we are to reduce the mortality from these infectious diseases and make our towns and cities more healthy, the house-flies must be reduced.

### Labor Saving

Replies to our Labor Saving Contest started in the June 2nd issue of Farm and Dairy, are coming in regularly, and show a wide range of articles which are considered labor savers in the farm homes of our readers. Not as many illustrations have accompanied the replies as we would like. Get a snap shot or drawing of your favorite labor saver. Don't let about more than one article in one letter. Send in your letters to our Household Editor as the earliest possible opportunity. Read our article in the June 2nd issue for particulars regarding this Contest.

## The Sewing Room

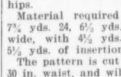
Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust measure for waists and waist measure for skirts. Address all orders to the Pattern Department.



GIRL'S DRESS 625



CIRCULAR PETTICOAT 661.



PRINCESS GOWN 648.



BOY'S SAILOR BLOUSE SUIT 663.



BOY'S SAILOR SUIT 664.



BOY'S SAILOR SUIT 665.

The dress that suggests the front opening yet in reality is closed at the back, is a fashion that is treated in that way and is smart. In place of the embroidery contrasting linen could be used down the front, or over embroidery could be used for the yoke and the sleeve bands.

Circular petticoats with cut-out seam at the back are much in demand. They reduce bulk and are perfect smooth, while the absence of seams makes them especially desirable under transparent materials. The circular bounce manure flares and is liked for a great many purposes. It is fitted with darts at the upper edge smoothness over the hips.

Material required for medium size is 7 1/2 yds. 24, 6 1/2 yds. 36 or 4 1/2 yds. 44 in. wide, with 4 1/2 yds. of lace 24 in. wide. 5 1/2 yds. of insertion.

The princess dress is one you will like. This model includes that feature and also a long panel at the front. The dress is made with the panels and the body portion of the skirt. The skirt is laid in a box plait at each side and in single plaits at both the front and back. The closing is made invisibly at the back.

Material required for medium size is 11 1/2 yds. 27, 6 yds. 44 or 5 1/2 yds. 52 in. wide, with 3/4 yd. of silk and 1/2 yd. of all-over lace.

The pattern is cut for a 34, 36, 38 and 42 inch bust and will be mailed for 10 cts.

The sailor blouse suit is becoming so altogether satisfactory one for the younger boys. This one is made with a fine sailor suit that is so well liked this season.

Material required for medium size is 9 1/2 yds. 24 or 27, 4 1/2 yds. 44 or 3 yds. 52 in. wide.

The pattern is cut for 8, 10, and 12 yrs and will be mailed for 10 cts.

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We know that you will be charmed with the New Scale Williams Piano.

We know that you will be delighted with its elegance and refinement.

We know that you will revel in its glorious tone—its tender touch—its magnificent action.

This is why we will select a **New Scale Williams**

—and ship it to you direct from the factory—subject to your approval.

If, for any reason, the piano which we select does not give satisfaction, return it and we will pay the freight charges both ways.

Write us for full particulars about our Plan of Shipping New Scale Williams Pianos on approval, and buying them on Easy Payments.

The Williams Piano Co., Limited, Ottawa, Ont.

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**CHAMPION**

WASHER

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\*An abstract of a lecture delivered before The Ottawa Field-Naturalists' Club, 1910.

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MARKET REVIEW AND FORECAST

Toronto, Monday, July 11.—The weekly report of the Canadian Northern Railway in regard to the crops, is optimistic, and states that the major bulk of the North-west crop is in good condition. The late rains came just in time to do away from irreparable damage. In Ontario, the crops are reported as in excellent condition, owing to the late providential downpour. From only a few scattered portions are there any adverse reports.

The drought has, of course, had its effect on the market, and the result has shown great fluctuations during the week.

The general trend of business continues to be satisfactory. Call money in Toronto rules from 5½ to 6 per cent.

WHEAT

The recent rains have caused a reaction on the large markets, although prices are very considerably in advance of last week's quotations. At last advices, July wheat at Chicago closed at \$1.03; September at \$1.02; and December at \$1.02. Local dealers quote as follows: No. 1 Northern, \$1.10; No. 2, \$1.07½; at lake ports for immediate shipments, Ontario wheat, 75c to 82c, outside.

On the farmers' market fall wheat is selling at \$1 to \$1.02 a bushel, and goose wheat at 90c a bushel.

COARSE GRAINS

Dealing in coarse grains, especially Easterns, continues steady. There is not much doing in Western grains. Dealers quote as follows: American corn, No. 2, 66c; Canadian corn, 65c to 66c a bush. Toronto freights, Canadian western oats, No. 2, 36c; No. 3, 37c, at lake ports; Ontario, No. 2, white, 35c to 36c a bushel outside; No. 3, 32c to 35c outside; 36½c a bushel on track, Toronto; peas, 70c to 71c; barley, 51c to 52c; rye, 47c to 48c; buckwheat, 51c a bushel.

On the farmers' market the following prices are asked: Oats, 39c to 40c; peas, 69c to 70c; barley, 46c; rye, 54c; buckwheat, 54c a bushel.

In Montreal, wholesale quotations are as follows: American corn, 64c to 65c; Canadian westerns, 63c to 37c; barley, car lots, extra, 48c to 49c a bushel.

POTATOES AND BEANS

New American potatoes are the only ones in favor at present in the market. There is little or no demand for the home grown article, which is quoted nominally at 55c to 60c a bushel. American potatoes are selling at \$2.75 to \$3 a bushel.

On the farmers' market potatoes are selling at 45c to 75c a bushel. The price of beans remains unchanged, being \$2 to \$2.10 for primes and \$2.15 to \$2.25 a bushel for poor quality beans. Potatoes in Montreal are 45c to 50c a bag in car lots. Beans, three pound cwt's, \$1.95 to \$2 a bushel.

WOOL

The Globe says: "The London sales which open on July 12, are predicted to register a lower range of values in wool. The United States is the only market local dealers can ascertain for Ontario fleeces, and as our values are considerably below theirs, they are not interested in their offerings. It will take some time for them to recover sufficiently to meet the market here. They are now exporting some grades to England to be sold at the London sales. Best quality Ontario fleeces, and other export market where Ontario wool could be turned to advantage. The present can only be termed a waste. American prices are selling at \$2.75 to \$3 a bushel.

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.

ORMSBY GRANGE FARM, ORMSBURY, N. B. Importation and breeding of high-class Clydesdales, a specialty. Special importations will be made.—DUNCAN McEACHRAN.

SPRINGBROOK HOLSTEINS AND TAMWORTHS.—High-class stock, choice breeding. Present offerings, two year old heifers, fresh and in calf. Young bulls. Five Tamworths from Imp. Stock, ready to forward.—A. C. HALLMAN, Breslau, Ont.

ONE 2 YR. STALLION by Champion Right Forward—Imp. One 3 yr. filly by Barron Blue, Imp. Yearling stallions and fillies by that greatest of sires, Acme Imp. Mostly all from imported males.—R. M. HOLBY, Manchester P. O., and G. T. R. Station; Myrtle, C.P.R., L. D. Phone.

tations are as follows: Washed fleeces, 19c to 20c; unwashed, 12c to 13c; rejects, 15c a lb.

HIDES

Local quotations for hides are as follows: No. 1, inspected steers and cows, 10c a lb; calf skins, 13c; sheep skins, \$1.25 to \$1.50; horse hides, 15c to 30c a lb; tallow, 6c to 6½c a lb.

Dealers are paying at country points for sheepskins, \$1 to \$1.10; lambskins, 20c to 25c; cow hides, 12c to 15c; horsehides, \$2.50 to \$3; horsehair, 30c to 35c a lb.

EGGS AND POULTRY.

Eggs are not going up in price, owing to the heavy demand and the inadequate supply, due to the drought. Wholesale quotations for eggs are as follows: dozen in case lots. On the farmers' market, they are selling at 24c to 26c a dozen.

Montreal dealers quote selected stock, 17c a dozen; straight receipts, 17c to 18c a dozen, and second grade at 15c to 13c a dozen.

Following are prices for poultry in Toronto: Turkeys, alive, 15c; dressed, 16c to 17c a lb; spring chickens, alive, 35c; dress 40c a lb; calves, alive, 16c a lb; old cow, dressed, 16c a lb.

HONEY

Prices for honey ranged as follows:—Honey, comb, \$2.25 to \$2.35 a dozen; strain of honey, 16c to 17c a lb.

Montreal prices for honey are: Clover white, 14c to 15c a lb; dark grades, 11½c to 12½c a lb; buckwheat honey, 7c to 7½c a lb.

HAY AND STRAW

Hay and straw remain unchanged in price. Dealers quote No. 1 timothy, \$14 to \$15.50; alfalfa, \$11.50 to \$12.50 a ton; straw, \$7 to \$7.50 a ton.

On the farmers' market choice timothy is selling at \$12 to \$13 a ton; clover and mixed hay, \$13 to \$15 a ton, and straw in bundles at \$15 to \$16 a ton.

In Montreal No. 1 hay is quoted at \$15 to \$15.50; clover mixed, \$11 to \$11.50 a ton.

MILL FEEDS

Mill feed prices remain unaltered: Manitoba bran is quoted by dealers at \$18 a ton; shorts, \$20 a ton on track, Toronto. Ontario bran, \$19 to \$21 a ton; shorts, \$21 a ton on track, Toronto.

Montreal quotations are: Manitoba bran, \$18½; shorts, \$21 a ton; Ontario bran, \$18½ to \$19 a ton; Ontario shorts, \$21 to \$21.5 a ton.

FRUIT AND VEGETABLES

The fruit market is lively, and prices are easier. Dealers are quoting strawberries at from 5c to 7c a bush; raspberries, 14c to 15c; gooseberries, 65c to 80c a basket; currants, 75c; cherries, 50c to 75c; plums, by the crate, \$2; apricots, \$1.25 to \$1.50 a crate; pineapples, \$2.75 a crate, vegetables are quoted as follows: cabbage, crate, \$1.50 to \$2; beans, a dozen, 40c to 50c; tomatoes, a crate, \$1.75 to \$1.85; peas, a basket, 40c; carrots, a dozen, 40c.

On the farmers' market, cabbages are selling at 5c to 10c each; lettuce, 5c to 5c; rhubarb, a bunch, 5c to 10c; beans, 2c, 6c to 9c; green peas, a measure, 20c; carrots, 16c to 15c; carrots, a bunch, 5c to 10c; and parsnips, 20c to 25c a peck.

DAIRY PRODUCTS

Prices for butter remain unchanged, although the late unfavorable weather has caused a certain stringency in the market. Dealers quote ordinary prints at 23c to 24c a lb; choice dairy prints, 19c to 20c; ordinary quality, 16c to 18c; separator prints, 20c to 23c a lb.

On the farmers' market, choice dairy butter is selling at 21c to 23c a lb, and ordinary quality at 18c to 19c a lb.

In Montreal, the best creamery butter is quoted by dealers at 22½c a lb.

Cheese are coming in in large quantities on the wholesale market, and large cheeses are quoted at 11½c, and twins at 11½c a lb; old cheese, 12½c to 13c a lb.

HORSE MARKET

There is a quiet trade in the horse market. Dealers are still sending a few car loads to the West, and prices range high for good animals. Heavy drafters, 600, \$250 to \$325; medium, \$160 to \$240; agricultural and general purpose horses, \$160 to \$240; medium, \$125 to \$150; expressors, \$160 to \$300; drivers, \$100 to \$250; serviceably sound horses, \$40 to \$90.

LIVE STOCK.

The hot weather still continues to exercise a marked influence in the cattle trade, and the diminished demand by consumers has had its effect in awakening cattle commission goods. Good steers and springers are distinctly lower in price. Hogs seem to be again taking an upward turn. There is a steady demand for sheep and lambs.

Wholesale dealers give the following quotations: Export cattle, 66½ to 67.10; medium, \$3.25 to \$6.50; ordinary quality, 65 to 86 a cwt.

Butcher's utility, medium to a cwt., 65.25 to 65.50; ordinary, 63 to a cwt. Heavy feeders, \$3.75 to \$5.65.

Storeers, \$3 to \$5.25; canners, \$2 to \$2.75. Milch cows, 40 to \$70; springers, \$30 to \$60; calves, \$3.50 to \$6.50.

Sheep, ewes, 84 to 85; bucks, \$3 to \$3.75; lambs, 87 to 90. Hogs, f.o.b., \$8.75; fed and watered, \$9 a cwt.

MONTRÉAL HOG MARKET.

Montreal, Saturday, July 9.—We have had a dull market for live hogs this week, and prices have declined. The market for dressed hogs has been well maintained, and quotations this week are steady at 10 1/2 to 11 1/2 cents. The bulk of the offerings sold at around \$9.25 down to \$9.00 a cwt. Heavy and more than average lots have been offered at 10 1/2 cents. The market for dressed hogs has been well maintained, and quotations this week are steady at 10 1/2 to 11 1/2 cents. The bulk of the offerings sold at around \$9.25 down to \$9.00 a cwt. Heavy and more than average lots have been offered at 10 1/2 cents.

EXPORT BUTTER AND CHEESE Montreal, Saturday, July 9th.—Quick exchange artists are not in with the operators in the cheese trade. This week the market has been very quiet. The price of butter has been steady, and the market for cheese has been very quiet.

CORRUGATED IRON

Galvanized, Rust Proof, Made from very finest sheets, absolutely free from defects

Each sheet is pressed, not rolled, corrugations therefore fit accurately without waste. Any desired size or gauge, straight or curved.

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Metallic Roofing Co. LIMITED MANUFACTURERS TORONTO AND WINNIPEG

THICK, SWOLLEN, GLANDS



Perth, July 2.—1300 boxes of cheese sold at ruling price, 10 1/2c. St. Hyacinthe, July 2.—975 boxes of cheese sold at 10 1/2c. London, Ont., July 2.—1115 cases offered: 515 boxes white, balance colored. No sales. Bidding 10 1/2 to 10 3/4c. Watertown, N. Y., July 2.—8000 cheese sold at 14 1/2c to 15c for large and twins. Cornwallville, Que., July 2.—122 boxes offered: 71 boxes sold at 10 1/2c; 51 boxes at 10 1/4c. Canton, N. Y., July 4.—2200 boxes of cheese sold at 14 1/2c. Campbello, July 5.—1220 boxes balance offered: 450 sold at 10 1/2c; 313 at 10 7/8c; balance red at 10 1/2c. Madoc, July 6.—430 boxes boarded; all sold at 10 1/4c. Woodstock, July 6.—1612 boxes of white, 300 boxes of colored, 10 1/2c bid; no sales. Peterburg, July 6.—3548 boxes offered. The highest price paid was 10 1/2c, and at this price nearly all sold. Balance went at 10 1/4c. Winchester, July 7.—985 white and 130 colored registered. A few white sold on Cornwauville, at 10 1/2c. Kingston, July 7.—580 colored and 950 white boxes registered. Most of it sold at 10 1/2c. Belleville, July 7.—2190 white and 1150 colored offered. Sales: 95c to 10 1/2 to 10 1/4c balance selling on the curb at market prices. Brockville, July 7.—410 colored and 1915 white offered. Sales: 910 colored and 785 white at 9 1/2c and 1440 colored and 1040 white at 10 1/2c. Perth, July 8.—2000 boxes boarded; 1600 white and 400 colored. All sold, the rutting price being 10 1/2c. Cornwall, July 8.—1413 boxes of white sold at 10 1/2c and 501 boxes of colored at 10 1/4c. Ottawa, July 8.—1734 boxes boarded, 615 colored and the balance white; 1321 sold colored at 10 1/2c and white at 10 11/16c. Iroquois, July 7.—640 colored and 575 white offered. All sold on the board market at 10 1/2c.

MAJURE FOR SALE UNION STOCK-YARDS, Toronto



Napaage, July 8-1655 boxes of white and 230 boxes of colored board, of which 292 sold at 10¢ each and the balance at 10 1/2¢ each. Bradford, July 8-200 boxes offered; sold, 240 at 10 1/2¢; 150 twins at 10 1/2¢.

Alexandra, July 8-850 boxes sold at 10 1/2¢. Comptsville, July 8-200 boxes offered, of which 736 sold at 10 1/2¢.

**AYRSHIRE NEWS**

Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association, all of whose members are readers of the paper. Members of the Association are invited to send names of interest to Ayrshire breeders for publication in this column.

**SUCCESSFUL AYRSHIRE SALES**

The auction sales of Ayrshires at Ryrouse, N. Y., on June 15th, and at Worcester, Mass., on June 17th, were quite a success. At the Ryrouse sale, many of them being small calves, brought an average of nearly \$80. A number of females brought from \$100 to \$300, this highest price being for Garston Male (Imp.).

- At the Worcester Sale, 26 head averaged \$147.6. The best consignment was from our Messrs. Robert Hunter & Sons, Maxville, Ont., who had catalogued ten head. These sold as follows:
- Dalhbille Tibbie, 3d Imp., 7 years, \$1100.00
  - Auchenbrain Bloomer, 4th Imp., 7 years, Dehurst Farm, 5 years, \$750.00
  - Barcheski Happy Lass, 5 years, Paterson, N. Y., \$500.00
  - Lesnessock Jessie Imp., 2 years, Pennhurst Farm, 5 years, \$425.00
  - Laino Cherry Imp., 3 years, Patrick Ryan, \$250.00
  - Lesnessock Tibbie Imp., 2 years 10 months, Patrick Ryan, \$275.00
  - Northton Milledale, 2 years, A. H. Sengendorp, Spencer, Mass., \$300.00
  - Springhill Lizzie, 2 years, Patrick Ryan, \$300.00

Total ..... \$4750.00  
Average ..... 475.00  
The Messrs. Hunter & Sons catalogued on the success attendant on this venture. The success of these sales will indicate Ayrshire breeders to continue holding them yearly.—W. F. S.

**THE AYRSHIRE COW.**

During the past few years, which the Ayrshire Breeders' Association instituted official tests conducted by and under the supervision of the Experiment Stations, the Ayrshire cow has made rapid progress in popularity, as the perfect dairy cow. This official testing has brought to the front a number of Ayrshires, noted for utility, and has more and more influenced the breeders in trying to eliminate any defects she might have, and bring to the front her remarkable qualities as a profitable dairy cow for every day service. One hopeful feature of the breed is that she has built herself up on all lines of dairy utility in dairy conformation and dairy lines of beauty. The Ayrshire cow stands today unique among the dairy breeds, with no aristocracy of family distinction, but maintains her popularity from her industry and hardiness of breed.

While there are minor differences in her appearance, under different breeders, and in different countries, the Ayrshire is an Ayrshire wherever good, and shows the same strong bred characteristics, or shapely udder, strong constitution and vigorous action, which make itself to be a great dairy cow under all conditions, and carries the type of the breed in her every act.

In Scotland, it is in the States she has been bred not for family booms or individual phenomenal excellencies, but all along the line she has been pushed as a breed of uniformly dairy superiority.

This is I believe greatly to her advantage, and greatly to the advantage of all purchasers of Ayrshire cows, for the uniformity of her dairy excellence makes all buyers pleased with their purchases and maintains the name of the Ayrshire cow. In studying the results of the testing for advanced registries, but all along the line she has been pushed as a breed of uniformly dairy superiority.

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very poor, the general run being from good to fair, very superior ones.

One very interesting feature shown by the Advanced Registry test is the quick response made to increased food and care given. Some of the herds in the test are so good that would hardly be called a profitable ration, but these herds show that are fed for high production, and a remarkable adaptation to respond fully to the more liberal feed. The dairy product in all the herds seemed to follow closely to the food and care bestowed, showing that the Ayrshire could readily conform herself to whatever condition she had to encounter, and would respond accordingly, and always with the largest return possible for food consumed.

The result of the last Home Dairy Test with nine herds of five cows showed the average of the whole 45 cows to be 8,995 lbs. of milk and 411 lbs. of butter. The best five herds with 25 cows averaged 10,654 lbs. of milk and 428 lbs. of butter. One herd of five cows averaged 11,562 lbs. of milk and 538 lbs. of butter. The rounding up of the herds at the fair:

**Thanks for the Pig**

I have just received the pure bred Yorkshire pig sent me from Farm and Dairy from Mr. Henry Glendinning, of Manilla, Ont. It is a good pig and arrived in good shape. I thank Farm and Dairy for sending me such a good premium.—Roy Wooley, Lambton Co., Ont.

last fall showed the effect of the labors of the Association in the pushing to the front the best type of the breed, for at all the fairs both East and West so far as I saw them, the general display seemed to be for utility, and no one could look over to the lines of my own in the ring without being impressed with the effort of the breeders to produce a beautiful dairy cow of great dairy ability.

Nearly all the cows shown at the leading fairs both East and West displayed great square udders with long teats and the uniformity of cows displayed showed what was very gratifying to a lover of the Ayrshire, that the lines of my own in long the line from East to West, in Scotland, Canada and the States, the breeders had the same type in mind and were all trying to breed the perfect cow, and that in that perfection utility stood out prominently at the front.

At the Iowa State Fair in the breed

**CRUMB'S IMPROVED WARRIOR STANCHION**

Henry J. Albertson, Burlington, Wis., writes: My horse, a danish and gets greatly benefited by using Crumb's Stanchion.

**WHY TORTURE**  
yourself with tight stanchions?  
Crumb's Stanchion is a  
kind of inexpensive yet sanitary  
device, which will keep your horse  
comfortable and healthy.

**Dr. Bell's Veterinary Medical Wonder** cures all inflammation of lungs, bronchitis in all ages, whooping cough, influenza, and all other lung troubles. Write for free trial bottle. This offer good for 50 days. Limited to good bottles.  
**DR. BELL, V.S., Kingston, Ont.**

**MISCELLANEOUS**

**TAMWORTH AND BERKSHIRE SWINE**—Boars and sows for sale. J. W. Todd, Corinth, Ont., Maple Leaf Stock Farm, Etc.

**TAMWORTH AND SHORT HORNS FOR SALE**—Several choice young Bows bred by Imp. Boar, dams by Colville's Choice, Canada's Champion near 1200 lbs. and 70% recently bred sows. A few very choice yearling and two year old Shes. and further particulars. Excellent milk strain. Prices right.  
**A. A. COLWELL, Box 8, Newcastle, Ont.**

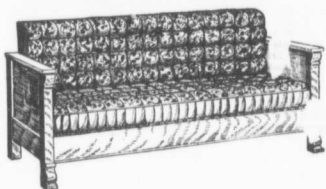
**JERSEYS**  
**PURE BRED JERSEY BULL**

Four year old, right every way. 11 of his beautiful heifers can be seen here. For price, photographs and further particulars write G. K. WHITE, Concord, Ont.

contest at the fall, the Ayrshire won 1st and 2d for butter and milk. At the Maine State Fair the Ayrshire won 1st at the fall for dairy product over other breeds. At the Alaska-Yukon-Pacific Exhibition the Ayrshire won 1st and 2d for butter and milk. At the 2nd and 3rd of the Ayrshire herds won 1st and 2d for butter and milk. At the 4th and 5th of the Ayrshire herds won 1st and 2d for butter and milk. At the 6th and 7th of the Ayrshire herds won 1st and 2d for butter and milk. At the 8th and 9th of the Ayrshire herds won 1st and 2d for butter and milk. At the 10th and 11th of the Ayrshire herds won 1st and 2d for butter and milk. At the 12th and 13th of the Ayrshire herds won 1st and 2d for butter and milk. At the 14th and 15th of the Ayrshire herds won 1st and 2d for butter and milk. At the 16th and 17th of the Ayrshire herds won 1st and 2d for butter and milk. At the 18th and 19th of the Ayrshire herds won 1st and 2d for butter and milk. 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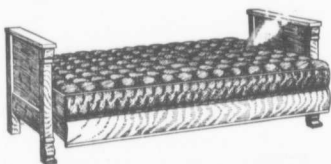
# A COUCH—A BED—A WARDROBE



## All In One Piece

And you never set eyes on a handsomer piece of furniture. Not only handsome, but durable, convenient and massive looking. If you bought the three pieces of furniture to which the Chatham Davenport Bed can be easily adapted, they would cost you over three times what the Chatham costs. Just glance at the illustrations.

The top one shows the Davenport as a couch. It is beautifully upholstered in maroon, black or dark green, the seat and back being supported by springs that afford perfect rest and comfort but do not sag. The woodwork is composed of solid oak, handsomely grained and varnished—a splendid piece of workmanship throughout.



## CHATHAM DAVENPORT BED

The centre illustration shows the Chatham as a bed. Two metal catches release the back, which folds over in line with the seat, giving you a soft, comfortable bed measuring 4 ft. wide by 6 ft. long. The resiliency and "give" of the springs ensures peaceful, quiet sleep. Just think what a convenience this is if a friend of yours drops in over night or comes to stay with you on a holiday—you can turn the couch into a comfortable roomy bed within a few minutes.

The bottom illustration shows the seat of the Chatham raised. Underneath you can put the bed clothes, pillows, etc., or you can use it as a wardrobe for dresses, shirts, coats, trousers, hats, etc., without fear of them being crushed or wrinkled.

### LOW PRICE

You can buy the Chatham Davenport bed for just the same price as you would pay for an ordinary sofa. We will ship it direct to your home from our factory, or you can buy from our nearest dealer.

### EASY TERMS

After you've had the Chatham a little while, you'll find it so convenient and comfortable that you'll forget the small price you paid for it. If it will suit you better you can arrange to pay so much down and so much a month, or we will accept yearly payments from farmers. Write to-day for free booklet.

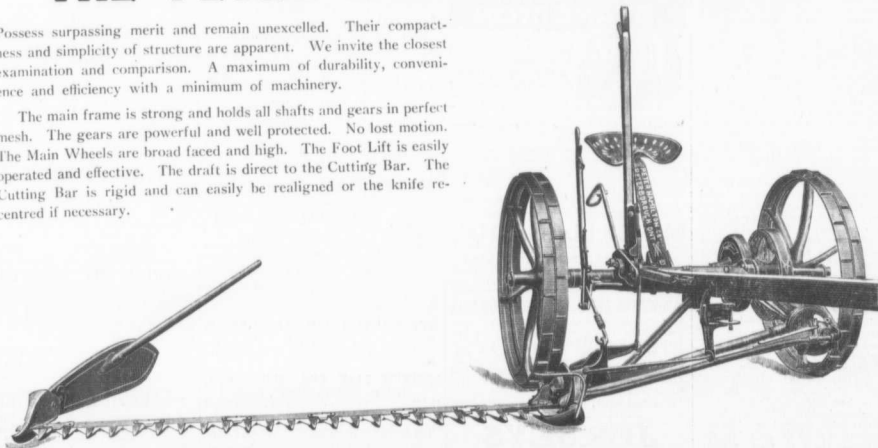
We Want Agents to Sell Our Davenport Beds and Kitchen Cabinets

**The Manson Campbell Co., Limited, Chatham, Ontario**

## THE PETER HAMILTON MOWERS

Possess surpassing merit and remain unexcelled. Their compactness and simplicity of structure are apparent. We invite the closest examination and comparison. A maximum of durability, convenience and efficiency with a minimum of machinery.

The main frame is strong and holds all shafts and gears in perfect mesh. The gears are powerful and well protected. No lost motion. The Main Wheels are broad faced and high. The Foot Lift is easily operated and effective. The draft is direct to the Cutting Bar. The Cutting Bar is rigid and can easily be realigned or the knife re-centred if necessary.



Be Sure and See the Peter Hamilton Agent before Buying

**THE PETER HAMILTON CO., Limited - Peterborough, Ont.**