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VOL. XXIX.

NUMBER 30.

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JULY 28, 1910.



A SUBSTANTIAL WELL KEPT HOME OF A PROSPEROUS WESTERN ONTARIO FARMER

The home illustrated is one of the fine farm homes of Middlesex Co., Ont. It has all modern conveniences, the latest one added to it being the telephone. Mr. John Leach, the owner, is a first class farmer, making a speciality of breeding good stock and growing big crops of wheat and corn. Mr. Leach's home is beautifully situated on a slight elevation and as may be seen is surrounded by a well kept lawn. Ornamental and fruit trees also add much to the joy of living on Mr. Leach's farm.

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CANADIAN COUNTRY LIFE

Why the Link Blade is Best

When buying a Cream Separator, you want the best you can buy. A poor Separator, instead of making money for you, will lose money. You might as well use the old milk pans as a poor separator. A good separator will not make its much money for you as the best will. Read some of the reasons why the Link Blade Separator is the best on the market:

- 1.—**INCREASED CAPACITY.**—The Link Blade device has an increased capacity of from 30 to 50 per cent. over the most efficient of previous devices, combined with very clean skimming, under a wide range of conditions.
- 2.—**EASY TO CLEAN.**—The blades do not come apart, and so can be washed and handled all in one piece.
- 3.—**NEVER GETS LOOSE.**—The device is expansible and fits the bowl snugly. It can never become loose or shift in the bowl, and throw it out of balance.
- 4.—**NO STRAIN.**—The pressure is distributed through a series of brass rivets, so there is no strain on the blades themselves.
- 5.—**EASY TO TURN.**—Being more efficient, it is lighter and smaller in order to do the same amount of work, and is accordingly easier to handle.
- 6.—**WILL NEVER CLOG.**—When making a long run, the deposit of sediment on the inner wall of the bowl will never clog or choke off the supply of milk. Link Blade machines have run for three or four hours continuously, and the test of the skim milk showed as close skimming at the end as at the beginning of the run.

Let us Show You. Have a Link Blade machine set up for a free trial. Write for free booklet, and the name of our nearest Agent.

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With Cement Floors reduce labor to a minimum, and make bright and sanitary stables. They are practically indestructible, while the out-of-date stables are constantly in need of repairs, and are short lived compared with the latest and most up-to-date stables. You will be surprised at the low cost of them.

Our new catalogue contains a lot of valuable information for you if you are building a new barn or remodeling your old one. It is free, and a post card with your name and address plainly written will bring it. WRITE!

BEATTY BROS. - Fergus, Can.
LITTER CARRIERS, HAY CARRIERS, ETC.

The Late Wm. Rennie

Mr. Wm. Rennie, the well known seedsman and agriculturist, who has been in poor health for some time past, died at his residence, Swansea, Ont., Sunday morning, July 24th. Ontario farmers and many other agriculturists throughout the Dominion are well acquainted with the work that Mr. Rennie did for the advancement of Canadian agriculture.

Mr. Wm. Rennie was born in 1855 in a humble log cabin in Scarborough. His father and mother having emigrated from Scotland a few years previous were in a very poor circumstance. His early days were spent on the farm. Many farmers of the present day are familiar with the Rennie homestead in Scarborough, which has long since been known as the "Gold Medal Farm," of Ontario. In 1869 Mr. Rennie left the homestead and started farming for himself on the second concession of Markham, near Richmond Hill. In 1870 he rented his farm and moved to Toronto, where he established a seed business, which is today one of the largest concerns in Canada. Shortly after establishing his seed business Mr. Rennie found it necessary to grow a large quantity of his seeds, and again assumed charge of his farm. With more improved methods and a better knowledge of agriculture, he developed his farm so that in 1884, in competition for the best managed farm, Mr. Rennie was awarded the first silver medal, while his brother, Simpson Rennie, won the gold medal. In 1885 he placed his farm the centre of some very interesting gatherings in connection with what is known as the "Markham Farmers' Club." These annual reunions used to bring together upwards of a thousand people.

Mr. Rennie retired from business in 1889, leaving the now well-known Rennie seed establishment to his three sons—Robert, John and Thomas. In 1893 he was asked by the late Hon. John Dryden, then Minister of Agriculture, to take the position of Farm Superintendent at the Ontario Agricultural College at Guelph, to demonstrate his new ideas regarding agriculture. This he did, and remained with the College for six years, bringing the farm to a high state of cultivation, and thoroughly demonstrating his methods. Upon his return to Toronto he put into book form all his valuable information and experience in a volume known as "Successful Farming," a book which has been read with profit and interest by many of the farmers of Canada.

Through his skill and enterprise in agriculture and related pursuits, Mr. Rennie was brought a good deal into public view and although he had been for some years living a very private life, he is still well remembered by an unusually wide circle of intimate friends.

Farm and Dairy would like to see a movement started to erect a suitable monument to the memory of Mr. Rennie, in recognition of his services to agriculture. We would suggest that such a monument be erected by subscribers collected from farmers all over the country on the grounds of the Ontario Agricultural College.

Lice on Turnips

My turnips are badly infested with lice. Please give me instructions for combating this pest.—A. S. M. Lambton Co., Ont.

The insect affecting your turnips is the turnip aphid. This insect is generally at its worst in a long, dry spell. Very little can be done to combat it if present in large numbers and scattered over a large field. Kerosene emulsion applied with a potato sprayer or might do some good, but it would be difficult to spray under the leaves where most of the insects will be found. Poisonous mixtures as Paris

green would not be ineffective as the aphid is a sucking insect.

Items of Interest

According to a Canadian Association Presse despatch the foot-and-mouth disease from which the cattle of Great Britain have long been free, has appeared on a farm in Yorkshire. A wide area around the affected district has been quarantined.

Mr. H. S. Peart, B.S.A., Supt. of the Jordan Experimental Fruit Farm, died on the evening of July 19th. Mr. Peart was a young man, just in his prime. He had been long enough in charge of the Jordan Station to demonstrate something of the good work he was capable of doing for the fruit grower.

A despatch from Winnipeg dated July 21st, states that reports from Gretna have it that the black grasshoppers, the most destructive pest ever known in the North-west, have made their appearance in swarms within the

Prize Farms Are Judged

The results of the judging of the prize farms, entered in the Dairy Farms' Competition conducted by Farm and Dairy, to determine the best dairy farm in Ontario, will be given in Farm and Dairy next week. The report of the judges and the extensive scores of the first four or six farms will be published in detail.

The smaller farms and the large farms have divided the honors for the places pretty evenly. Some of the farms profited greatly in the placing over last year from improvements that have been effected. The same first awards were made a year ago. The judges made a minute inspection of the farms and consider a second visit unnecessary.

Just few days, and are attacking garden stuff. From 1871 to 1874 they covered the country in swarms, eating everything green, and driving the bark from the poplar trees after they had destroyed the crows. The grasshoppers are large, and have a wide spread of wing, resembling butterflies when in flight. They have come from the Dakotas, and appear to be headed north.

A cablegram from International Agricultural Institute, Rome, gives yield of wheat crop estimated July 1st as follows: Italy, 185,455,340 bushels compared with 155,711,230 bushels last year; Hungary, 202,090,455 bushels compared with 125,363,287 last year; British India, 358,151,465 bushels compared with 3,314,778 last year; Roumania, 131,001,570 bushels compared with 59,043,045 last year; Japan winter wheat, 20,779,715 bushels compared with total winter and spring crop of 23,584,000 bushels last year. Condition of spring wheat 128 compared with last spring's crop. Great Britain condition 101 compared with 10 year average.

A Correction

In the article about the Farmers' Dairy Co., of Toronto, that was published in the July 21st issue, of Farm and Dairy, a slight error occurred. A similar statement of the company, was quoted as follows: "Our members are required to furnish milk with milk containing at least three and one-half per cent. of butter fat. Any milk below this standard is skimmed. The members who furnish it are docked two cents a gallon for every one-tenth of one per cent. that their milk falls below the standard." A similar statement is paid to those producers whose milk tests over three and one-half per cent.

This should have read two cents a gallon instead of two cents a gallon.

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Each Week

FARM AND DAIRY

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a Year

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FOR WEEK ENDING JULY 28, 1910.

No. 30

SOME REQUISITES OF A MODERN DAIRY COW STABLE

A. Leitch, Stormont Co., Ont.

Many Stables are Wholly Unfit to be in the Business of Producing Human Food. The Cause of much Polluted Milk. Comment on Up to date Improvements that may be Installed.

How often we see good cows imprisoned in dirty, dark, ill-ventilated stables! We are obliged to wonder whether or not milk produced amidst such surroundings can be fit for human food. People are so prone to censure the city dealer for all the impure conditions of his milk, and everyone knows that he is culpable enough, but few stop to consider that it is back at the fountain head of the supply in the producer's stable that much of the cause is found.

Many of the stables that I have visited were absolutely unfit for habitation of any creature, much less for the home of the animal that provides the most important and most easily tainted of human foods. The majority of them are low, dark, entirely without ventilation, except for the occasional opening of doors; the cows were tied in cumbersome wooden stanchions as helpless as men in the stocks. In some cases the mangers were old rickety boxes, in which unclean particles of food were allowed to collect and putrefy. It is still very common to find in cow stables wooden floors, under which the liquid manure collects and decomposes, giving rise the year round to obnoxious gases and odors, which contaminate the milk on the slightest exposure.

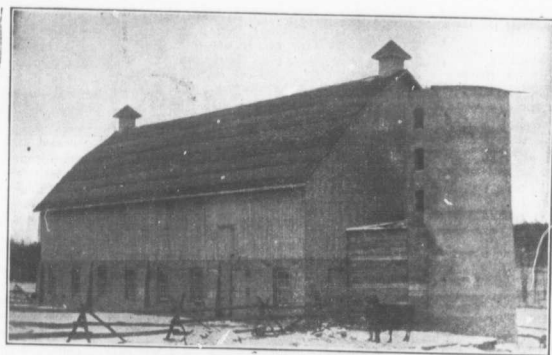
LACK OF CLEANLINESS.

Worst of all, with these conditions there usually goes hand in hand an appalling lack of cleanliness of the cows and attendants. The animals never feel a comb or a brush from one year to another, and their flanks and thighs become covered with manure which cannot help falling off into the milk during the operation of milking, and this is laden with myriads of putrefactive germs. Little wonder that people who receive such milk days after infection have disease and death dealt out to them and to their children. These details are not at all pleasant, but nevertheless they present the true state of affairs that prevails on a considerable percentage of milk-producing farms. A revolution in the conditions of farm buildings would remove 75% of the cause of the polluted milk that finds its way to cities.

GOOD STABLES DEFINED.

What constitutes a good condition of stabling for a dairy herd? I do not approve of underground stables. They are too difficult to light properly as they are not usually exposed to the light on more than one or two sides. Furthermore, dampness always goes with underground stables with stone or cement walls. The stable I like best is one well above ground on a stone or cement foundation. It should have a good deep

basement underneath through which the air can circulate. The stable must have a tight floor, preferably of cement, overlaid with planking in the stalls leaving the gutters and passages uncovered. The object of the plank covering is to prevent rheumatism and lameness, which, our own and other's experience has taught us, affect cows especially in the knees if allowed to stand or lie a whole winter on a cement floor. The stall should be just long enough to allow the cow to stand on it without having her feet in the gutter. The latter on no account should be more than four and a half or five inches deep so that there is no danger of the cows injuring themselves slipping down into it. A slight fall towards the gutter of about one inch is desirable in both stall and



A New Stable in which the value of Sunshine and Ventilation has been Recognized
Seventeen double windows, 2 feet 6 inches x 4 feet, allow the sun to shine in every part of the stock. This barn is on Mr. A. W. Caton's farm, Addington Co., Ont. See page seven this issue for plan and description of these stables.

passage in order that all liquid may collect in its proper channels.

IRON PIPE PARTITIONS.

The cheapest and strongest partition that can be erected between the cows is formed of iron pipe, imbedded in the cement about half way from the manger to the gutter and extending upward and forward where it is joined to another upright pipe placed at the cow's head. To brace the whole thing securely the forward uprights may be fastened to another bar running horizontally over the heads of the animals, which pipe will be found of use in fastening swinging stanchions, should the latter be made use of. Besides its cheapness and rigidity, the ease with which the stable can be kept clean is another important factor to be considered, for there are no corners and crevices where vermin and filth can accumulate as is the case with the cumbersome wooden partitions so much in vogue.

Although the opinion of dairy experts is adverse, personally I prefer to have a manger in front of the cows. But recognizing the evils that accompany the usual style of box manger, I must add that that style is worse than none at all. A manger must be of such a formation that it can easily be cleaned out, and the round-bottomed kind is the only kind that conforms to this condition. The reason that a manger is preferable to none at all, lies in the fact that in eating from a flat surface the cow is liable to push the feed out of her reach, either into the passage or back into the stall, amongst the bedding. A manger should be provided with partitions between the divisions allowed to the different cows, in order that they may be fed independently of each other, especially in regard to their meal ration. All dairy-men who do not have managers deplore the fact that this manner of feeding meal is unsatisfactory, and it seems to me that we must return to a modification of the manger that will enable us to feed our cows equitably and independently.

One good device that I have seen, but which was very costly, was a large galvanized iron trough about eight inches deep and 20 inches across, placed in front of the cows. The feed passage was elevated a foot and a half above the floor of the stall and the trough was placed right up against the edge of the elevation, so that the fodder was just dropped into the trough from the passage. The manger was provided with a partition between each cow, so that it was very satisfactory and made a very permanent and easily cleaned manger, though very expensive. A depression about six inches deep and two feet wide in the cement in front of the cow proves to be a very good manger, and many of this kind are in use and appear to give good satisfaction.

MEANS OF TYING.

There are many excellent devices for tying cows; there are two outstanding good ones. The first is the swinging stanchion of iron pipe fastened above and below, and turning on a pivot at each end. This allows the cow a maximum of freedom, as she can lick herself or lie down with her head in any position she chooses. The other device is a light chain around the neck and sliding up and down a bar at the side of the stall. This method is not so costly as the former and allows almost as much freedom.

Water is best supplied by a system of water buckets, many kinds of which are on the market. These should be placed high up out of the way of the animals while eating, and may be arranged so that one bucket will do for two cows.

LIGHT AND VENTILATION.

For most perfect lighting the stable should be narrow, and should not be occupied by more than two rows of cattle. The animals may be placed head to head, which facilitates feeding operations; but if feeding conditions will allow,

I prefer standing the cows with their heads towards the windows. In our own stables the feed chutes open at the walls of the building, so we placed the cow's head outwards, though it was slightly at the expense of ease in feeding silage. This latter method facilitates the removal of the manure if it is drawn out daily, and as much of the stable work is done behind the cows, except the feeding, it appears to economize steps. This, however, is largely a matter of taste with the farmer himself.

Above all, there should be in the stable an abundance of sunlight, which is the cheapest and best natural disease preventer we have at our command. Light is best supplied by a number of deep, broad windows in the east, south, and west sides of the building—not the little narrow, horizontal slits, which some are pleased to call windows and which are too often seen in our stables. A good convenient size is a window four feet by three feet placed every 10 or 12 feet inside of a barn halfway between the ceiling and the floor. This will provide sufficient light for the health and comfort of the cattle.

Practical Feeding Experience of a Dairyman

E. B. Mallory, Hastings Co., Ont.

My experience with soiling crops for dairy cattle has demonstrated that their value depends much upon circumstances. Last year I used soiling crops, mostly peas and oats. This year I am pasturing second crop red clover instead. If anything my yield per cow is a little ahead of last year in July. I would not say, however, that this is due wholly to the different means of keeping up the flow, as about one half the herd freshened a little later this year.

DON'T EXPECT HOLSTEINS TO FORAGE.

Soiling crops are excellent feed for Holstein cattle, if the cattle are fed all they want and in variety. I prefer alfalfa. The Holstein cow is a lazy animal in hot weather in regard to walking far to get her feed and prefers to go without feed and to lie in some cool place rather than forage for it. Therefore I would say that if no fresh pasture is to be had near the farm I would feed supplementary feeds, and feed them liberally. On the other hand if a field or two of red clover has been cut near the barn and it starts up nicely and the second growth gets about six inches high it will be a saving of time and therefore cheaper to feed this than to cut feed and haul it to the barn, for the stable is the only place to feed soiling crops if each cow is to get her fair share.

Another consideration not to be overlooked is the access to water. The cattle must have water, and if the new pasture has no water near it and the cattle are likely to go in want, then I would use soiling crops and sow my second crop of clover for seed.

FEED ALL THEY WANT.

Whatever is fed, however, whether it be pasture or soiling crops, let the cows, all the way through, if soiling crops are used fill them up and do not let them have to depend on the old dry pasture field for part of their food, for a Holstein cow will do without till the next green feed is put before her rather than hunt on the old pasture for a spot or two she may have missed earlier in the season. If new pasture is provided let them have enough of it and when that piece gets eaten short, turn them into another. The milk flow must be kept up if good yearly returns are to be received, and when the flow is kept up the cattle also keep up in flesh, which is a point gained for the work of the next year.

I have two small pieces of alfalfa near the barn and if my new seedling does not come on well in the spring, or is not accessible for pasture after haying, I sow whatever peas and oats, at intervals, that I think I will need to supplement the alfalfa.

This year I had a large quantity of new seedling, one 13-acre field right across the road from the barn with a spring creek running through one corner of it, so I did not provide any soiling crops except the alfalfa and this I have cured for hay and am feeding it to the calves. I have some sweet corn, however, coming on for the fall months should it be needed because of drought or if the pasture gets eaten short.

LARGE RECORDS BY CONTINUED FLOW.

The foregoing is our experience in feeding and we are getting excellent results. Our herd averaged over 9,000 lbs. of milk last year and this year



Haying in New Brunswick

The illustration shows a haying scene in Maritime Canada. The photo was taken on the farm of Wm. Jardine, Kent Co., N. B. The one horse carts shown are characteristic of many parts of the Maritime Provinces. The large annual rainfall in New Brunswick gives ideal conditions for growing large crops of hay.

we expect to reach an average from heifers and all of 10,000 lbs. each. This record will be accomplished only by keeping up of a steady flow. The keeping of individual records shows very quickly when the milk begins to fail and a pound or two on a cow less every few days will soon reduce the daily mess to one-half what it should be.

Vice in Horses

Dr. H. G. Reed, V.S., Halton Co., Ont.

A horse may be sound and of good conformation and yet of little value because of being addicted to some vice, which makes him a more or less dangerous animal to use. Unsoundness is a disability. Vice, while not, strictly speaking, a disability, is often worse, because it may be dangerous, as, for instance, balking, kicking, pulling at the halter, running away, rearing, shying, and so forth.

While some animals appear to be naturally vicious, it is more often the result of improper



The Hay Loader at Work

The illustration shows a hay loader in operation on the farm of J. E. Caldwell, Carleton Co., Ont. Hay loaders are very useful where a large acreage of hay is grown, and help is scarce. They are becoming a necessity on many Ontario farms.

training or of bad habits acquired during idleness. Once a habit becomes confirmed it is often most difficult, if not impossible, to overcome.

THE BALKY HORSE.

A balky horse is nearly always the result of bad management during breaking. About the only treatment for such a horse is kindness and unlimited patience.

Kicking is one of the worst vices in a horse. A horse that will kick in harness should never be tolerated. To detect a kicker examine for enlarged hocks and other injuries about the legs. Examine his stall for marks of kicking. Notice

if he remains kind when a strap is placed under his tail. A horse can be prevented from kicking in single harness by the use of a strap over the crop and fastened to the shaft on each side. In double harness it is most difficult. A kicker should always be checked very high to keep his head well up as it is very difficult for an animal to kick in that position. A confirmed kicker, however, might better be destroyed because of the danger to life and limb.

Running away is a most serious vice, and once the habit is formed it is most difficult to overcome. To detect this habit examine for accretions about the mouth caused by the use of severe bits. Shying can easily be detected by trial. It is sometimes the result of cowardice or defective eyesight; in either case it is dangerous. If it is the result of mere playfulness or high spirits it can be overcome by firm and gentle handling.

MINOR VICES.

As well as these dangerous vices, we find a list of what are sometimes called minor vices, often very annoying. "Crib-biting" and "wind-sucking" are analogous terms. A cribber will place his teeth against the manger, post, fence, or any object, then bearing down till the neck is changed from its natural shape will suck in air with a peculiar sound somewhat resembling a hicough. A confirmed cribber will often suck in air till he is so full that he cannot hold any more. A cribber is usually thin in flesh, as the habit interferes with digestion. The habit is usually acquired during prolonged idleness in the stable. Highly bred, nervous animals are more likely than others to develop the habit.

TO CURE A CRIBBER.

As is the case with most habits cribbing is difficult to cure. The horse should be tied in a stall from which the manger has been removed. He should get his hay from an iron rack high up in one corner and his oats from the floor, or he might be tied in a wide stall with a strap from each side to keep his head in the centre and get all his food from the floor. A strap buckled tightly around the throat will sometimes stop the habit. As a last resort the confirmed cribber may have to wear a wire muzzle at all times except when eating.

"Weaving" consists of a motion of the head, neck and body from side to side like the shuttle of the weaver passing through the web—hence the name. It indicates an impatient and irritable temperament and a dislike of the confinement of the stable. A horse confirmed in this habit will keep up a monotonous see-saw for hours together. The only treatment is to tie the animal up so tight, except while eating, that he cannot do it.

STUMBLING IS INCURABLE.

Stumbling is often called a minor vice or habit, but it is often a really serious and dangerous one, more especially in the case of the saddle horse. Anyone accustomed to riding on horseback knows what a great objection it is in a horse for saddle work. This weakness can often be detected by examining the knees. They will often be found with patches of the hair knocked off by coming in contact with the ground. This condition is known to horsemen as "broken knees." Very little can be done to overcome this as it is often due to faulty conformation.

The Chester Berkshire Cross.—I have always found my greatest success and the quickest and most profitable way to get hogs on the market is to get a cross between the Chester White and Berkshire. With such a cross I have put hogs on the market when five months old weighing 20 pounds. These were sold at \$7.50, thus each pig realized \$15.00, making a splendid return. These hogs were kept on grass, milk and chopped barley, oats, peas and corn mixed.—Geo. M. James, Middlesex Co., Ont.

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Orchard Notes Applying to Ontario

A. McNeill, Chief, Fruit Division, Ottawa.

For several years I have had an opportunity of visiting some part of Ontario and noting the condition of the orchards, and have also been favored with a large correspondence from all parts of the province. Judging from my own observations as well as from my correspondence, I have no hesitation in saying that there is a slight improvement in the condition of the old orchards. Their condition, however, is still that of the slight improvement need scarcely receive more than a passing notice. I am speaking now of the small orchards, or the farm orchards, not of the commercial orchards where the conditions are altogether different. There has been a very large improvement in the large orchards, where the owners depend upon their orchards as revenue-producers. In fact there is a tendency towards concentrating the apple growing industry in certain districts, and these are not always the most favored districts.

EXAMPLE VS PRECEPT.

The fact is that ex-ample appears to have more to do with the matter of orchard improvement than precept; and where two or three or more are making a success of orchards—and this can only be done by taking proper care of the orchard—then we find the thing contagious and that neighborhood will more or less generally practise better methods of orchard culture. This it would be seen that the extension of orcharding depends more upon individuals than upon the adaptability of the soil and climate, though Ontario is so happily situated that a fair amount of success is always certain in any part of it.

As a general thing, farmers are poor lookkeepers and very few of them know with any degree of accuracy how much work they put upon their orchards and the value of that work, and what revenue is produced from them. They are equally ignorant, in most cases, of the details with reference to other crops, and usually grow what they are in the habit of growing, what their neighbors are growing or what their fathers grew, but only in a very few cases have I noted that the crop grown was determined by its profit.

IS ORCHARDING PROFITABLE?

Orcharding is not considered especially profitable by the average farmer out of the regular fruit districts, where there are no co-operative associations. That it is not as profitable in these cases as where the people are making a business of fruit growing may be perfectly true, but even with the irregular and poor crops that the average farmer gets from his small, neglected orchard, it is easy to show that, considering the amount of money spent upon it and the revenue derived from it, it is easily the most profitable part of the farm, though of course never as profitable as it might be made.

The men who are planting orchards most freely are the younger men, those who for some reason or other have got away from home, and have noted what is going on in other sections. Few of the older men are planting new orchards, and this disinclination to plant is not because they have no hope of reaping the pecuniary rewards, but rather because they do not think the business profitable,

or they feel that there are some secrets in connection with the business that they could not master, or, it may be, from a general ignorance of the whole subject.

THE VALUE OF ORCHARDS.

Little definite information can be given as to the average price of bearing orchards per acre. Usually there is no such thing as selling the orchard separate from the rest of the farm, but a good orchard on a place will generally increase the value of it, but how much more no one can say. In the fruit growing districts, where orchards as such change hands, the price also varies greatly, but perhaps \$200 to \$300 an acre might be taken as the average price. This is far below its intrinsic value, and many shrewd men are buying up orchards at this price, and I would hazard the opinion that in a few years bearing orchards will not sell for less than \$400 an acre and probably \$500. Even this is below their revenue producing value, but an allowance must be made for the fact that they have full value only when owned by



The Farm Machinery Ready for Haying and Harvesting
The illustration was taken on the prize winning farm owned by Mr. A. McLen-nau, Gleggarry Co., Ont. Part of his full line of up-to-date farm machinery is shown.

men who understand the care of orchards.

My advice to every farmer in the apple districts of Ontario is to plant at least 10 acres of orchard. The apple bearing area of Canada is small compared with the whole of the Dominion, and orcharding in Ontario must become a much more important industry than it is at present.

Make the Babcock Test Compulsory

G. W. Fortier, Carleton Co., Ont.

Two years ago a meeting was called of the patrons of our cheese factory and we decided to pay for milk on the butter fat plus two basis. Our idea in establishing this system of paying for milk was that better milk would be secured and that adulteration, which had been practiced to some extent, would be stamped out.

We lost patronage from the very first. The first season we did not receive one-half the usual quantity of milk. There are always some farmers who are never satisfied. Generally these are the men who are not anxious to supply good milk. These farmers all took their milk to neighboring factories. These factories seemed glad to receive their product, although I do not know how they made money receiving such milk as they did, unless they cut their patrons on the weight.

LEGISLATION NEEDED.

The only way which I can see to get around these difficulties is to either oblige factorymen to refuse milk from the patrons of some other factory or to make a law whereby every factory is compelled to pay by test. Our factory is kept

in first-class condition and well drained. We have a cool curing room as well. In spite of this we were losing patrons to factories where an inferior product was manufactured.

Last year, we had better success paying by the test, as we received the patronage of most of the intelligent farmers. In my opinion, all intelligent patrons should insist that their milk be paid for according to test. Last year, we lost just one patron but we did not regret that as we had been bringing in very poor milk. He is at present, sending his milk to a factory where the pooling system is followed and the patrons of that factory who send in good milk are helping to pay for his poor stuff.

Summer Treatment for Cows

G. H. Blair, Carleton Co., Ont.

Pastures provide a fodder that is best suitable for milk production. But in the hot months of July and August, when the grass gets parched and scanty, the pasture must be augmented by the feeding of some green food to the cows. The most balanced, cheapest, and easiest handled green crop that can be grown is peas and oats, which should have been sown at such a time that it is nearly matured at the time when it is needed for the cattle. If green clover can be procured at this period it is extremely valuable for this purpose. Many farmers make a practice of keeping ensilage for summer feeding, which also gives good satisfaction.

Green corn does not give as much satisfaction as a supplemental food owing to its immaturity at this time of the year and to its wide nutritive ratio, but if a little bran or oats were fed in connection with it green corn would do very well as a bulky green feed, though I have never seen it fed in this way. The practice of soiling cows exclusively is as yet very little followed in Canada, but the time will come when the land will be too valuable for pasture and cows will be stable fed in summer as well as in winter.

In the case of any pasture, there should be an abundance of shade and running or spring water, and if the grass is at all good the cows will give good yields with little or no additional food as pasture grass forms a most perfectly balanced ration for dairy cows. We have had little experience in feeding grain to cows in summer, but I believe that a little bran or oats twice a day would in many cases give good results, particularly if green corn be fed as a supplement to the pasture.

In the hot fly time it is good practise to spray the cows three times a week with a mixture of one part whale oil or soap and four parts coal oil, a mixture of which we have found very satisfactory as a preventive.

Corn Cultivators.—Now that the season for scufflers is with us, the benefits of the two-horse corn cultivator should not be lost sight of. Is there any work on the farm more wearisome or more dreaded than trudging day in and day out after the old one-horse cultivator and then coming in wearily at night with feet sore and tired from trudging through the soft earth? The experience is quite different when the two-horse cultivator is used; one feels as fresh after a day's cultivating with the sulky as though he had been for a drive through the country, in which case there need be no dread of the evening's chores. After a day of such work one can thoroughly enjoy his tea and afterwards the daily newspaper and evening recreation.—E. Terrill, Northumberland Co., Ont.

Great care and judgment should be exercised in securing the hay crop. Many of the ills and the poor condition of stock are traceable to the inferior quality of the bulky feed provided for them.—N. J. Kuneman, M. A. C., Winnipeg, Man.

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SYNOPSIS OF CANADIAN NORTH- WEST LANDS REGULATIONS.

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

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 20 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister of homesteader in good standing may pre-empt a quarter-section allotment. Price \$300 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$200.

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

FINE TEMISKAMING FARMS

The Third Letter from Farm and Dairy's Editorial Representative in
New Ontario

LISKEARD, NEW ONTARIO, July 20.—The visitor from the South need never fear not receiving a hearty welcome from the North. It receives him with open arms and welcomes him with an unquestioned friendship. It takes him into its confidence and tells him of its struggles and hardships, its hopes and ambitions.

One of the first to welcome the visitor is Mr. E. F. Stevenson, editor of the "New Liskeard Speaker." But Mr. Stevenson is more than an editor; he is just as enthusiastic over his farm on the East Road about a mile from Liskeard as any farmer in Temiskaming. "This is Farmer Stevenson, not Editor Stevenson," he told me one morning last week, and then led me off to his new farm. It is a plank frame, cedar foundation one, equipped with the latest approved machinery. Mr. Stevenson's farm from an beautiful Lake Temiskaming and his house is not more than a couple of hundred yards from the water.

LARGE PROFIT
"I came here six years ago," said Mr. John McFarlane, who also lives on the East Road "and paid \$800 for the 160 acres with no clearing. Now I have 80 acres cleared and last year I had 90 tons of hay and 2,000 bushels of grain. This year I will have between 150 and 200 tons of hay."

Mr. McFarlane's farm is among the best in Temiskaming. In 1908 he built a timber frame barn, 48 feet by 68 feet. Like Mr. Stevenson's, it has a cedar block foundation. All the lumber used was taken off his own place—another example of the value of a bush.

Though he has cleared 80 acres in six years, Mr. McFarlane has not spent a single dollar that he did not get back out of the lumber he took out. "I would cut the trees and sell the lumber, then use the money in clearing the land," he explained. The farm is now worth something over \$15,000.

REFUSED \$10,000.
Next to Mr. McFarlane's farm is Mr. John Shaw's. Again the visitor sees a magnificent farm with a new, well equipped barn. Asked what he valued his place at, "I hardly know," he replied. "I refused \$10,000. You see we don't like to part with our farms in this country. This is characteristic of all Northerners. Examples are frequent of men having made fortunes up here and gone to Southern Ontario to spend them, but before a twelve-month they were back in Temiskaming. There is something intoxicating in the clear sky, the fresh air and the bright sun, that unite to make New Ontario's the healthiest climate in the whole Dominion.

This section has the cream of the Temiskaming farms. Here your correspondent also called on Mr. A. S. McChesney and Mr. John McChesney. Both have fine farms. The former has built a new cement block house, three stories high. It is on a hill and commands a rare view of the surrounding country. In the foreground the regular rolling farms with their acres of waving grain, in the distance Lake Temiskaming with Liskeard and Haileybury nestling on its shore.

Another successful farmer on this road is Mr. John Richards. The writer found him with his four sons in a busy field of 50 or 60 acres. The hay is exceptionally heavy this year. "Just like cutting peas," remarked one of the boys as he got off the mower and pulled the hay away from the blades—an operation that was repeated two or three times in cutting one swath. Mr. Richards refused \$13,000 for his place.

Further along this road your correspondent came upon the Whalen Brothers and Mr. Reynolds working on the road. They have not as large clearings as the above, but are none the less enthusiastic about the country. "I paid \$200 for my farm," one said,



A Settler's First Crop

and after bringing my wife and children in had only \$10 left." Practically all the farmers in the clay belt had nothing left after reaching their land, but now the majority have a neat sum laid up against a rainy day and a farm whose value is increasing very rapidly. Of course, these are the ones that have been on the land for sometime.

CONTENTMENT BEGINS.
A very noticeable characteristic of the Temiskaming farmer is that no matter what his circumstances he is invariably happy. Perhaps it is his optimism for the future, for here they live in the future; perhaps it is the healthy invigorating climate. I think it is the knowledge that he owns a home that to him is second to none in this fair and prosperous Dominion.



A New Liskeard Farm Home

and that he is independent in a loyal and free country.

As a rule, the houses are well furnished and comfortable. Most of the farmers are married and have families—another reason for their happiness and contentment. (The man who wrote this is a bachelor Editor.) On some roads the farmers have established rural telephone systems and before long telephones in the houses of Temiskaming will be the rule, as it is now in the older parts about Liskeard. At the present time this small por-

tion of the Great Clay Belt looks at its best. The grain oats, wheat and barley show every indication of being a record crop. The hay is invariably heavy—some places the farmers say it goes four tons to the acre. On the average it goes over two and up here hay sells for \$20 a ton.

Many of the settlers are using new potatoes and the other vegetables are just as well advanced.

A GOOD EXCURSION.

As I mentioned in my letter last week, a farmers' excursion from old Ontario was suggested to me a short time ago. Since then, I have mentioned it all the time. All that would be a fine thing, both for New Ontario and for old. To really appreciate Temiskaming one must see it for himself.—Colin W. Lees.

Winnipeg Exhibition

The array of live stock at Winnipeg's ten day summer fair has never before been equalled in the West. The leading classes of live stock were exceedingly well represented. The stable accommodation, especially for the horses, was altogether too small. Some of the cattle were housed in a tent, while others tied to a fence, stood in the blazing sun.

Much admiration was expressed by noted breeders from the east and from the west, for the class of live stock exhibited the panoramic exhibition of G. Clark of Georgetown, Ont., who had the task of judging the dairy section, said that although Ontario was noted for its dairy cattle, the west was fast coming to surpass the east and would in the future eclipse the east and rank among the dairy countries of the world. At the time of going to press the report of the awards had not yet come out. These will be given in Farm and Dairy next week.

Well known western breeders and exhibitors of Clydesdale stables as Jno. Graham, R. H. Faber, C. G. W. Jones, P. M. Brett & Son, J. C. M. Johns & Traynor Bros., Jas. Burnett, McKirdy Bros., S. Benson and several others, with a few fine animals, contested for places with 13 representatives shown by Graham Bros., of Claremont, also a choice lot exhibited by T. H. Hassard, of Markham, Ont.

The exhibit of swine more than surpassed the sanguine expectations of the judge, Mr. Clark, of Georgetown. He stated that while shows in the east could claim a more extensive exhibit, the west was fully equal in regard to quality. Yorkshires made the strong test showing, Berkshires were also good and three exhibitors exhibited Poland Chinas.

A special feature of the fair, the motor competition, was even more popular than ever. Eighteen engines in all underwent the severe tests required by the rules of the competition.

Westerners who criticized the fruit holding at the exhibition were somewhat surprised to learn from the data displayed in connection with the Ontario fruit exhibit that 75 per cent. of all the fruit of Canada is produced in Ontario, including 60 per cent. of the plums, 70 per cent. of the apples, 80 per cent. of the small fruits and pears, and 99 per cent. of the peaches and grapes. Leading varieties of apples such as Northern Spies, Russets, Greenings, Ben Davis, Baldwin, Pippins, Snows and Starks, kept over in cold storage, neatly packed in boxes, were displayed at the exhibition. Such fruits as cherries, currants and gooseberries in the exhibit, demonstrated that Ontario can produce these fruits to perfection and can also place them on the western market. Such a triumph for the best Columbia tied with Ontario in the exhibition of fruits.—H.

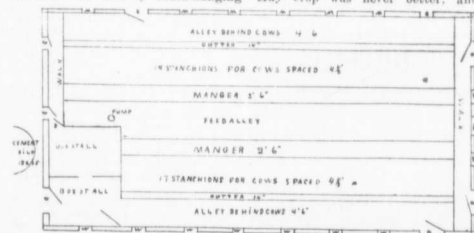
I like Farm and Dairy very much and would not like to buy without it. James Ilesbeter, Peterborough Co., Ont.

A Modern Cow Stable

The stable illustrated on page three of this issue is described by the owner, Mr. A. W. Caton, as follows: "The wall is constructed of brick and terra cotta outside and is plastered with cement. Stone piers, four feet thick at the base and tapering to two feet at the top, support the framework. These piers are 17½ feet apart. The frame rests on an eight-foot wall. The space over the feet accommodates from 65 to 75 tons of hay, besides grain. The hay and straw are taken in at the west end of the barn by means of slings.

"The floor over the cattle is of matched lumber. The King system of ventilation is installed. The stable has cement floors throughout, the feed alley being raised about four inches. The stable is so lighted by means of 17 double windows, two feet six inches four feet that the sun may shine in every part of the stable sometime during the day.

"The silo as shown in the illustration is 12 feet by 35 feet and is five feet in the ground. It has a capacity of 100 tons. Our herd consists of about 40 Jerseys. When in the stable, the cattle are tied by chain-hanging



Plan of an Up-to-date, Well Lighted, Well Ventilated Cow Stable

The plan is of the stable owned by A. W. Caton, which stable is illustrated on page three of this issue, and is described in the article "A Modern Cow Stable" on this page.

adjustable stanchions. By means of these the cows can be lined up with the gutter, short and long cows alike. Gas pipe is used for stalls between the cattle."

Reports of Ontario Crops

Unusual interest is centred in the reports of crops this year. Rumor has it that crops in the west are a failure. Such a report however, is altogether unwarranted, for while it is true in part, as applied to Southern Alberta, reports from other districts are hopeful, and a fair average crop is expected. The weekly crop report, of the Canadian Northern Railroad, dated from Winnipeg, July 20th, admits that the situation throughout Southern Manitoba is very serious. Detailed reports from some other sections are in many cases hopeless, but in other parts again, notably in Northern Saskatchewan, they bear out previous reports to the effect that the crops are in excellent condition and promise a large yield.

While there is more or less room for doubt as to the ultimate outcome of the crops in the West, good crops are a certainty in Ontario. The best crop of hay in years has been harvested. Much of the fall wheat is cut and in stook, and with few exceptions it is an excellent crop. Spring grains, for the most part, are making a very good showing and but for a few instances where an undue percentage of smut is reported, yields will be well up to the average, although the straw is perhaps not as long as in some years. Extracts from Farm and Dairy correspondents follow.

Crops are fair; in some cases better than last year.—P. O'Riley, Brant Co., Ont.

Crops are all good except peas. Pastures have been grand.—Geo. Ivey,

Northumberland Co., Ont.

Crops in general are fair, hay is light, grain and hoe crops are excellent.—H. R. Thompson, Lennox Co., Ont.

The hay crop is fairly good and will average two and one-half or three tons an acre. Grains are a little light and straw short.—H. Mains, Carleton Co., Ont.

Hay is good, but grain will be short owing to the drought. Pastures have been good but are drying up now.—Geo. Parker, Frontenac Co., Ont.

The hay crop is extra good. Early grain will be a fair crop. Pastures are fine.—J. D. Hennessey, Hastings Co., Ont.

Fall wheat is an Al crop. Spring grains are looking well. Roots are backward.—K. A. Johnston, Peterboro Co., Ont.

Crops are very good but pasture is poor owing to drought.—L. A. Thompson, Frontenac Co., Ont.

Crops are at a standstill and pasture is burned out owing to lack of rain.—O. F. Stewart, Lanark Co., Ont.

Crops are better than last year. Corn is looking fine. Pastures are dried up.—Wm. Drew, Haldimand Co., Ont.

Hay crop was never better, and

there are good prospects for grain. Pastures are good.—M. H. Patterson, Stormont Co., Ont.

Some crops are looking good. Late grain will be short. Pastures are just about dried up.—J. M. Wilkinson, Hastings Co., Ont.

We have more hay than for years. Pastures have been fine, but are drying out now.—Wm. Taylor, Grenville Co., Ont.

Crops are looking well considering the drought. Clover is an excellent crop. Oats are looking well. Pasture is poor.—G. H. Farewell, Hastings Co., Ont.

Clover is yielding about three tons an acre. Grain and corn look well.—Eugene Fortus, Glengarry Co., Ont.

All crops are fair except corn, which did not come up well.—Richard Wright, Frontenac Co., Ont.

All field crops are great this year. Pasture is good.—S. H. Pwiddy, Hastings Co., Ont.

Crops will be better than first expected. Oats and barley are looking fine. Pasture is short.—H. Bennett, Oxford Co., Ont.

Hay is good, grain is rather poor, pasture is poor.—N. Shillington, Haldimand Co., Ont.

A very heavy crop of hay; other crops looking well.—T. Brageau, Prescott Co., Ont.

Hay, rye, barley, oats and spring wheat are all good. Fall wheat is a little patchy.—P. J. Murphy, Lennox Co., Ont.

Oats, fall wheat and fall rye are a fair crop; barley is a little short. Pastures have been good.—A. Vanduzen, Prince Edward Co., Ont.

Crops were never better. Some corn is poor, due to bad seed and will only be a half crop.—Jas. Simms, Prescott Co., Ont.

The hay crop is extra good. Both fall and spring grains are looking

well.—R. S. Carter, Prince Edward Co., Ont.

Crops are better than for three years past.—W. C. Guinness, Leeds Co., Ont.

Hay is an excellent crop. Grain crops are very good.—A. Garralt, Prescott Co., Ont.

Crops are about equal to last year, except hay, which is considerably better.—J. W. Carter, Perth Co., Ont.

Hay is better than the average, as are also corn and grain crops. Farmers will have more feed than their present stock will require.—I. J. McIntosh, Dundas Co., Ont.

FARM MANAGEMENT

Double Cropping with Buckwheat

Will you kindly give me your valuable advice on the following subject: Being unable to procure manure with which to enrich the soil of pasture land on a sandy hillside, I was told to have it plowed, mixed with wood ashes and sown with buckwheat, which, when in flower should be rolled, allowed to rot upon the ground and plowed in, after which clover and timothy should be sown.

The buckwheat is now in flower and ready to be rolled and plowed in. I am advised by some to repeat the operation of sowing buckwheat again, which would allow the clover and timothy to be put down early in September, and they claim enrich the land doubly, with the double plowing and the two crops of buckwheat. Others tell me that a second growth of buckwheat would be detrimental and not advantageous. There is no great objection for me to have the pasture ready for use more or less early next spring, as I have other land for that purpose, I should like to do whatever would be conducive to in-

creasing the land. What course had I better pursue?—J. T. Portent Co., Que.

The treatment already given is about as good as could be devised for the rebuilding of the soil in question. I would suggest, however, that the buckwheat be turned under with a shallow furrow, say four inches deep, as soon as rolled or shortly after, then the soil rolled again after turning the buckwheat under and harrowed.

I would suggest that this year you either sow more buckwheat or else, some time in August, say about the middle, you sow fall rye at the rate of about one bushel an acre. Let this grow until the following spring, when the land should be again plowed and seeded down to timothy and clover with a thin seeding of oats, say one and one-half bushels of oats.

I would suggest that you apply at the time of seeding about 200 lbs. of land plaster, 100 lbs. nitrate of soda an acre. This should help the timothy and clover to make a start. Care should be taken during the first year under grass net to pasture to closely.—J. H. G.

Rather Late for Millet

I have a piece of land off which I have cut some clover. Is it too late to sow some millet, or could you suggest some other crop that would be suitable for seeding early?—A. G. Huron Co., Ont.

The probabilities in favor of your getting a crop of millet, sowing it at this date, are very small. However, if you could not use rape to advantage, that is, if you had not enough dry cows or other dry stock to consume the rape that would likely be produced on such an area, it would probably be worth while making the trial.

You might expect good returns from

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THE ONTARIO AGRICULTURAL COLLEGE, GUELPH, CANADA
Will Re-Open
September 20th, 1910

Our new Calendar is now ready. We shall be glad to send you a copy. Write to-day to
G. C. CREELMAN, President.

a crop of grey stone turnips, if you cared to grow this variety. If the season was favorable, of course, you might come out with a good crop of millet, since two months is long enough to give you a crop well worth harvesting.—J. H. G.

To Eradicate Bindweed

In some of my fields I notice two or three large patches of bindweed. We are summer fallowing two of the fields, and the other is in mixed grain. Will the thrashing be apt to throw any out in the straw stack? We do not know much about bindweed. We have plowed ours twice in one week's time. Will it be all right to sow those pieces to buckwheat along with the rest of the field. Can we get rid of it by any reasonable means, and which is the best way?

Is there such a thing as wild cucumber.

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and can it be got rid of easily? How? Kindly reply and oblige, and tell us the best way to handle bindweed, and if it will do any harm in the buckwheat?—A. S. Durham Co., Ont.

Re bindweed would say that the best treatment is to introduce a hoed crop into the field as soon as possible. More or less of the seed is sure to get into the straw as well as into the soil, and the hoed and handweeded ripens quicker than the oats and other grain; thus a lot of it is shelled on the ground where it is growing, and thus comes up again the next year.

The field you mention might very safely be sown to buckwheat with a reasonable hope of destroying a lot of it that way. The safest way, however, as already stated is to get the field as soon as possible into a hoed crop, and if you could plow and cultivate in August previous to growing roots or corn. This combination of summer fallow and hoed crop would be almost sure to entirely rid the field of the weed.

I have heard the name wild cucumber mentioned but do not know any weed under that name. There is a cultivated vine grown more or less widely which is known by that name, but I have never heard this vine being considered as a weed.—J. H. G.

To Farm on Light Land

Would you be kind enough to tell me what kind of crops would be best to grow on land of this nature? The top soil is about three inches in depth, is composed of a light tuff nature, while the under is sand more or less.

It is almost impossible to plow the land without turning the sand to the top, and appears to want quite a bit of manure to get any kind of a crop off.

Would fruit trees do well on this land? What would be the best method to handle the poultry manure for the land? I have two hundred acres in Muskoka, and tried farming two years ago but it proved a failure, partly on account of the wet season and of the nature of the land. I would like to try it again if I could find out what would be the best way to handle the manure on this land. It is the most encouraging branch of farming to take up.

I intend, if possible, to go into poultry mostly, as I like the work, and have kept them quite a while on a small scale.

Would it be possible to grow oats and spring wheat as well as grain necessary for poultry food?—T. W. Toronto, Ont.

In the first place such land as you describe is suited for dairy farming, pork production, poultry and fruit. The latter will, of course, be influenced very materially by local climatic conditions, or by slopes, exposures, etc.

I would advise you to select the best of your land and to follow thereon a three-year-rotation: First year, corn; second year, oats sowed down with timothy and clover; third year, clover hay. Follow the clover hay with corn again, applying your manure on this crop, and if you wish to grow roots and potatoes to a certain extent, you should put them in the same field. Corn should always be followed by grain sowed down to clover, a liberal seeding of clover, say 10 to 12 lb. an acre, which should again be followed by corn.

Keep as many dairy cattle as you

possibly can, but be sure that they are all good ones, that is cows that will give you a good return for your investment in money and labor.

I would suggest for your district of Muskoka good grade Ayrshires and a pure-bred Ayrshire bull. If you have only 10 acres of decently fertile land on your farm then start with the 10 acres, and gradually bring other areas as convenient to the buildings as possible into a fair state of fertility by pasturing, then plowing and sowing such crops as buckwheat and rye to be turned under a green manure. In this way you will gradually get a certain amount of humus in the soil, which will permit you to get decent returns when you sow to corn, etc., as indicated in the rotation described above.

For swine, I would suggest your growing each year a small amount of roots, mangels and rape; the roots for winter feeding, the rape for summer soiling.

I would suggest that you build a silo as soon as possible after you get into the farm. In fact, if you really intend farming, I would suggest that you start right off by building a silo, since on such land as you describe, the silo is practically the whole thing.—J. H. G.

HORTICULTURE

Fruit Prospects in Nova Scotia

P. L. Morse, Kings County, N.S. The fruit crop is now far advanced to make a prediction as to the quantity and quality of the crop which will be harvested in the Annapolis Valley this year. Last year, the exportation of apples from this valley was 750,000 barrels. The average for the last seven years has been 500,000 barrels. This year, 200,000 barrels is a generous estimate as there will not be more than one-third of a crop. Many large growers say that they will not get more than one-tenth of a crop.

There was a lot of speculation at the beginning of the season as to the cause of this serious shortage. Many thought that the bud moth had something to do with it, but this cannot be the case. The spring at present is that the severe freeze of April 25th killed the buds as they were fully two weeks ahead of the usual development at that date.

The quality of the crop promises to be good although the weather has not been ideal. However, as spraying is almost universal, we can almost always count on good quality fruit. The variety of the trees never looked better, and all indication point to a bumper crop next year.

Cover Crops for the Orchard

S. H. Neville, Oxford Co., Ont.

In an orchard which has had clean cultivation in the early part of the summer the trees will be making rapid and healthy growth. Toward the end of July or the first of August, it is advisable to sow a cover crop in the orchard. A cover crop has a beneficial influence on both the soil and the trees. The cover crop prevents hard soil from cementing or puddling, holds the rains or snows until they have time to soak into the land, dries out the soil in spring, and sometimes serves as a protection from frost. It improves the chemical conditions of the soils in that it adds humus, renders plant food available and, if the crop is leguminous, will collect nitrogen from the air. A cover crop also keeps down the weeds.

An orchard which is well cultivated right through into the late fall will produce a strong growth of new wood, and keep up this growth so late in the fall that the new wood has not a

chance to harden and become seasoned. Hence such trees are more subject to winter killing than those which have had a season's growth. It has been shown. The cover crop appropriates much of the food in the soil for its own use, thus checking the excessive wood growth on the trees and affording the wood a chance to harden for winter.

Three of our most common cover crops are buckwheat, vetches, and clover. Each of these affords a good heavy cover, and may or may not be harvested. Vetches and clover have the advantage over buckwheat in that they are leguminous plants, and add the supply of nitrogen in the soil.

Cover crops, if they have made good growth, will interfere with the harvesting of the fruit crop in the fall.

When such is the case, they may be cut off with the mower and the crop left on the ground to rot or they may be smoothed down with a plank drag. To remove the crop from the orchard altogether is to remove a great deal of fertility which may or may not be available for the trees the following year.

Blackleg of Potatoes

Our potatoes have a peculiar disease which differs from ordinary potato blight. The stock turns black at the bottom and follows along up until the leaves first wilt, then turn yellow and die. What is the cause and the best treatment for it?—C. T. M., Yale-Cariboo.

It is impossible to diagnose a disease from such a vague description. There is a general similarity between the symptoms mentioned and those of a potato disease known as black leg. The disease is well distributed over North America, but has not been a serious cause of loss. It is usually worse on wet soils.

The treatment here recommended is entirely preventive. Select seed, if possible, from fields on which the disease has appeared, and use them for seed purposes, all tubers which have sound, cracks or decayed areas. Disinfect all seed tubers with corrosive sublimate before cutting. Spread the seed in shallow rows in layers in a dry place exposed to the direct rays of the sun for several days would be an excellent supplementary practice, and tend to hasten germination as well as to destroy the disease. Department of Botany, O.A.C., Guelph, Ont.

Thinning Fruit

It is the production of seed which saps the vitality from the fruit tree. Consequently if trees are allowed to overbear, exhaustion ensues, and a year is needed to recuperate. This is the reason why most trees only bear every other year. If, however, thinning is performed judiciously, the fruit tree will produce a bumper seed production, turns its attention to perfecting the fruit left on it; hence there is a large percentage of No. 1 fruit and fewer culls. The sooner, if fruit touch one another, the thinner the spray cannot find access, and as at the point of contact the skin is thinner insects which feed on the fruit find easier access, thus thinning both the fruits where they touch.

The above are some of the reasons for thinning fruit as given in the July issue, by the British Columbia correspondent of the Canadian Horticulturist, a monthly fruit magazine, published at Peterboro, Ont. As a guide when thinning fruit, this correspondent gives the rule that it fruits should be thinned so that the matured no two fruits shall touch one another. Intelligent spraying and pruning are also essential to the production of the best fruit. There are several other instructive articles on apple growing in Ontario, control of codling moth, peach leaf curl, and the text of the new Destructive Insects and Pests Act also appears in the July issue. A copy may be had on application to the above address.

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POULTRY YARD

A Classification of Poultry Products

If we are to develop a large market, either home or foreign, it is essential that our customers should know what they are buying. The only way in which this can be done is for poultry men to get together and adopt some uniform system of grading. This is the object of the Poultry Producers' Association of Canada.

At a recent meeting, this society drew up a classification of poultry products for the use of its members.

The universal adoption of this plan is aimed should belong to this society. Prof. F. C. Elford, of Macdonald College, invites criticism and suggestions regarding the following classification. All poultry keepers should give this classification careful study.

DRESSED POULTRY.

Classification and grading for roasters, fowl and capons:

Poultry is first classified into chickens, fowl, cock birds, capons, spicks, ducks, geese, turkeys, guinea fow, pigeons, and when packed, there is a further classification as to size and weight. A standard of grading is set for each class and all birds packed must conform to that standard.

Chickens—The term chicken applies to (1) pullets that have not laid and are under seven months old, (2) cockerels that have not developed a hard spur firmly attached to the leg. They are further divided as to weight into broilers and roasters.

Roaster—Usually weighs from one lbs. and upwards.

Fowl—The term fowl applies to hens of any age.

Cock birds—All male birds having hard spurs firmly attached to the leg, including mature birds, without reference to age.

Capons—Birds successfully castrated when from six to 12 weeks of age, showing very little comb, and no spurs.

Slips—Birds not successfully castrated, so showing comb, spurs and generally coarse than capons.

Ducks—Divided into two classes, ducklings and ducks.

Ducklings—Ducks marketed before their first molt, usually from seven to 12 weeks old and weighing from three to five pounds each.

Ducks—All ducks not included under the term duckling.

Geese—Divided into two classes, goslings and geese.

Gosling—Geese marketed before their first molt, usually from seven to 12 weeks old and weighing from seven to 12 lbs.

Geese—(a) Under 10 lbs. (b) Over 10 lbs.

Turkeys—Divided into young and old hen turkeys and young and old Toms.

Young hens—All weights; young Toms, under 12 lbs.; old hens, all weights; old Toms, all weights.

Guineas—Divided into young and old.

Pigeons—Divided into squabs and pigeons.

Squabs—Pigeons up to the time of leaving the nest, usually about four weeks old.

Pigeons—Birds after they have left the nest.

GRADING.

This grading applies only to roasters, fowl and capons. All the foregoing classes of poultry are graded before being packed, and a standard is set which applies to these classes. There are four grades, viz. —

Selects, **No. 1**, **No. 2**, and **Common**. All the birds must be packed uniformly as to size and weights in each

package, a uniform weight to mean—birds that do not vary more than one lb. in weight.

Birds that have been sick or show any indication of disease, birds that have food in the crop, that have deformed, crooked breast bones, that have blood or other dirt upon their bodies, heads or feet shall not be included in these grades.

All birds must be dry picked, roasters and fowl clean except around the neck. Capons should be dressed capon style. By that is meant the style that has become standard and which requires that the feathers be allowed to remain on a considerable portion of the bird. Leave the feathers on the upper half of the neck. Pick the breast clean, pick around the vent, and up to the large tail feathers. Pick the entire underside of the wing, all three joints; pick the upper part of the first joint next to the body. Leave the feathers on the upper part of the last two joints, including the long wing feathers or flights. Leave the saddle feathers on the back to within two and one-half or three inches of the tail.

Cooling should be done gradually, but thoroughly before packing, not dipped in water. All classes should be packed on the market undrawn, having head and feet marked.

Packages must be distinctly marked,



Embden Goose

The goose is a profitable consumer of bye-products, such as might otherwise go to waste on a farm. A flock of geese will live through the summer on pasture.

showing the class, the grade, the number, the average weight and the gross, tare and net weight they contain. See suggested illustration:

GRADED DRESSED POULTRY.

Put Up by The POULTRY PRODUCERS' ASSOCIATION OF CANADA

Class—Grade... No... Av. Wt... Selects—To consist of specially fattened birds; extra well fleshed and of superior finish and appearance; unbroken skin, without blemish, straight breast bone, and neatly packed in packages of one dozen birds. Each package shall include birds of a uniform size and color of flesh and legs.

No. 1—To consist of well fleshed birds of neat appearance, but lacking the uniform finish and sleekness. Packed in neat boxes holding one dozen birds, of uniform size and weight.

No. 2—To consist of fairly fleshed birds, packed in neat boxes holding one dozen.

Common—To consist of any birds, not conforming to the requirements of the above three grades, but must not be packed in boxes similar to the other grades.

EGGS.

Grading—It must be remembered that all eggs must be shipped new laid. A new laid egg is an egg that is not over five days old when shipped, an egg that has been gathered promptly and kept in a moderately dry, cool place (under 40 degrees), free from foul odors and other contaminating influences. On holding a new laid egg to the light it will be seen that the air space in the large end is very small and the yolk almost invisible.

As the age continues, the air space enlarges and the yolk becomes visible. Rough-shelled and abnormal eggs should never be shipped.

Though some markets may call for several grades of eggs, as a general rule, there is no necessity for many grades. What the best trade demands is freshness, uniformity in packing and regularity in supply.

The Goose on the Farm

J. I. Brown, Hochelaga Co., Ont. The goose is distinctly a farmer's bird. To raise them successfully year after year, a sufficient pasture must be at their disposal. A small flock may be kept anywhere and may even find their daily green ration on the highways, but a larger flock of them would not be desired where the home acres are but few. Geese turn grass into greenbacks. They are close grazers, and as they bite closer than the cow will leave none for the cattle where kept in large enough numbers to hold the growth of the grass in check; this may have been the origin of the old saying, that geese spoil pastures. As a matter of fact, they do not. Their dung is not a poison for vegetation.

One gender of the heavier breeds is able to take care of two genders and they begin to lay early in the spring and are a breed that avoid excitement or changes, the mating should be made during the previous fall. It is fully to expect success from a gender mated to a strange flock in the spring.

Some Differences in Marketing

Prof. F. C. Elford, Macdonald College. Eggs of first-class quality, marketed in an attractive way, will always find a ready market at a fancy price. Eggs have two values, the intrinsic

and the relative. The relative value is the one which brings the high price and greatest profits. Eggs dumped in a basket and sold to the first buyer that comes along may be just as valuable as those put up in an attractive wooden case with cardboard sections and excelsior above and below, but they will not bring half the price. Eggs put up, as just described, by Macdonald College, brought 70 cents a dozen when the market price was 35 cents for the ordinary run.

There is another very important factor that adds to the relative value of eggs and that is the quantity in which they are delivered. When a poultry man can put up eggs in large quantities and of first quality, there will be no trouble about getting a substantial advance over market prices.

Anyone can produce the eggs of quality when reasonable care is taken. The co-operative egg circles as have been described before in these columns offer the chance to market eggs in quantity.

An instance of a successful egg circle is to be found near Montreal. It supplies a fancy trade in that city. On an average they receive 25 cents a dozen more in winter and 10 to 15 cents a dozen more in summer than the current market price.

Producers should get together and form egg circles in each locality. Too great results should not be expected at first for we must prove that we have the goods before we will get the price. Once we have the reputation and prove that we can deliver the goods we are sure to get the advance in price.

I enclose my renewal subscription to Farm and Dairy, which is getting better all the time.—E. A. McKim, Grenville County, Ont.

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AND RURAL HOME

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

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

CIRCULATION STATEMENT

The paid subscriptions to **Farm and Dairy** exceed 5,300. The actual circulation of each issue, including the complimentary paper sent subscribers who are not slightly in arrears, and sample copies, varies from 8,500 to 10,000. Paid subscriptions are accepted at less than the full subscription rates. Thus our circulation does not contain any dead circulation. Sworn detailed statements of the circulation of the paper are filed with its 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 confidence and our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any advertiser have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the matter thoroughly. Should we find reason to believe that any of our advertisers are not men in the slightest degree, we will discontinue immediately the publication of their advertisements. Should we find any advertiser in violation of our conditions of advertisement warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to entitle you to the benefits of the Protective Policy, is to include in all your letters to advertisers the words "my ad. in **Farm and Dairy**." To complaints should be sent us as soon as possible after reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

ONE BREED OF POULTRY

The best results will never be secured from poultry on any farm until one breed only is kept by itself on that farm. The mixing of breeds, or even keeping two breeds separate on the same farm, will never permit of the best results being realized. There are several reasons for this. No two breeds require the same attention, the same feed, or the same surroundings. The conditions that are suitable for one breed are often unsuitable for another.

Pullets should always be kept separate from year-old hens no matter what the breed. Pullets are not fully matured until after they have been laying for a considerable time. Therefore, they can stand more feed and less exercise without stopping egg production and afterwards becoming too fat. Year-olds must work and work well for everything they get if they are to be kept in laying condition. Over feeding year-olds results in their becoming too fat, laying soft-shelled eggs and developing the habit of eating them. Prevention is much better than cure for once a hen gets to be an egg eater, the only remedy is to cut her head off. Attention to these

and other similar points is the price of success.

AN EXAMPLE WORTH FOLLOWING

Owing to the spread of local option in Western Ontario, it is possible to travel over 100 miles from Woodbridge to Warton without being able to purchase intoxicating liquor. On the Credit Valley line, there is not a license left between Streetsville and Markdale, a distance of 80 miles. The same is true of the Beeton and Hamilton line, where no licenses are left between Meaford and Georgetown, a distance of 85 miles.

Within these areas are located some of the finest agricultural lands in the province. Hotels are not wanting. The farmers in these sections have found that the open bar works nothing but evil wherever it exists and they have abolished it. Nothing but benefit has resulted to themselves and to their sections. Their example shows that farmers elsewhere have nothing to fear from following their lead.

CHEAP FOODS TO ALL PEOPLE

The science of plant and animal breeding has made wonderful strides in recent years. Enough is already known that were it applied in the improvement of plants and animals, it would enable the world to add 10 per cent to its food products at very little cost. Such a practical application of the principles of scientific breeding would materially reduce the expense of living. The need of the present is that methods be worked out for utilizing the new knowledge already existing and that which promises rapidly to come, and that these methods be applied on hundreds of thousands of farms throughout the world.

The work of the plant breeder unfolds larger and larger in scope with every year. To realize the rapidity of the development of scientific plant breeding, one needs only to learn that two decades ago, the botanists of the United States Department of Agriculture were debating amongst themselves as to whether it was proper

to term plant breeding in the same manner as Prof. J. S. Budd, of Iowa, was giving inspiration to the first classes taught in plant breeding in the State Colleges of Agriculture. Now there is no more higher accredited scientific subject in agricultural colleges than the subject of plant breeding.

The influence of the science has spread far and beyond the colleges. Farmers are learning that even everyday crops like alfalfa and clover, as well as wheat and apples, can be so bred that they will produce larger yields, preponderate in certain nutritive elements, show higher color, form, keeping quality, resistance to disease, than do the common types which were supposed to be all efficient. The breeders of bacteria are giving these makers pure cultures of new varieties of bacteria which produce cleaner cheese of the soft types which run uniform and can safely be purchased on sample.

Formerly much of the effective

breeding of plants was with less important, mainly ornamental species, fruits and vegetables. Now, however, the grower, economist, scientist and the breeder all see that the large problems concern the improvement of the great staple crops which feed the nations and which give us our balance of trade. By adding 10 per cent. to the hereditary yielding quality of the corn seed in the United States, the crop would be increased by more than a hundred million dollars.

Until recent years, the principles of the science as relating to animal breeding were applied to plants. Now, however, the work with plants has progressed to a point much beyond what was formerly known of animal breeding and the knowledge gained is applicable to animal breeding. It is apparent, therefore, that the breeding of both plants and of animals is taking a place in national economics. Every encouragement should be given experiment stations and the various organizations which are responsible for pushing the work of introducing breeding, testing and distributing seeds and plants which will produce larger crops and eventually will supply cheaper foods to all people.

MAINTAIN THE MILK FLOW

It is little wonder that a low record of milk production is the rule with so many dairy cows when the kind of pasture upon which they are obliged to subsist is known. A dairy cow cannot be expected to forage for provender as can young stock, or horses, and at the same time yield milk in quantity. Mr. E. Mallory, writing elsewhere in this issue of his experience, puts the matter very clearly on this point.

The prevailing prices of dairy products are such as to warrant considerable expenditure for time and feed in order that the milk flow may be maintained. Since prospects all point towards continued good prices, one would be ill-advised in allowing milk production to go down for the want of abundant feed and care for the cows. Now is the time to make use of supplementary feeds, meal rations and, if need be, hay. Fed now, these will return a profit, whereas if withheld and the cows allowed to suffer, this feed will be required to maintain them after they have reached that condition where fair yields and profits are impossible until another season.

THE PROMOTION OF PEACE

At last we are beginning to see the utter folly of spending millions of dollars in times of peace to prepare for war. The Congress of the United States has recently voted \$10,000 for the appointment of a commission for the promotion of universal peace. Had the governments of the world during the past 25 years spent one-tenth as much money to promote international peace as has been spent in maintaining standing armies and expensive navies, such a thing as war between nations would have become an impossibility.

Education is all that is required to show the people composing the civilized nations of the world that war is a crime. There was a time

when men carried their own weapons with which to settle their individual disputes. They saw their folly, and instituted courts having power to adjust difficulties between individuals. The time is near at hand when nations will realize that it is possible for them to leave the adjustment of their difficulties to international courts of arbitration.

The French Government has unearthed in Babylonia 45,000 tablets giving the history in full of the reigns of ancient kings. These tablets show that during the reign of Nabuchadnezzar, they had free rural delivery of mail over every highway in the kingdom. Yet, we are told as farmers that we are ahead of the times when we ask for the general introduction of free rural delivery in the well settled farm sections of Canada.

East vs. West

St. Thomas Journal.

In Ontario no board of trade has undertaken to improve farm conditions and solve the problem of how to keep the young man on the farm, but the problem is here nevertheless. When we consider that farm life has twice the attraction to-day that it had a generation ago and that those false standards which placed professional life in the city as superior to scientific agriculture are being wiped out, when one considers that here in old Ontario is the modern Garden of Eden, that one can get an average yield twice as great to the acre as in the west and that nearer the market and that the opportunity for general farming is so much greater here than in the west and at a without the profits of stock raising, one wonders why it should be that this problem should have become so serious in Ontario.

However, that problem is not a possibility but a fact. It is a fact right in this county of Elgin where the fertility of the land is many times that of the west, and where the attractions of life are many times those in the new country.

The Minister's Turn To Move

Toronto World, (Conservative.)

Mr. J. W. Flavell has published his open letter to the Minister of Agriculture as a pamphlet, this embodying in permanent form his charge that the department is neglecting its duty in permitting so many of the young men of Ontario, the cream of our agricultural people, to leave their own province for the west, thus diminishing the production of such a valuable material for which there is a demand, and, by consequence, causing the great enhancement in the present value of food.

In response to the added demand for food products, Ontario has actually raised a less number of milk cows, of beef cattle, of sheep and lambs, of hogs, of butter, of cheese, and of poultry and eggs. Concurrent with this there is a reduced acreage of wheat, barley, oats, peas and beans, and but a small increase in corn, rye and buckwheat.

"Why," asks Mr. Flavell "is there enterprise and development in every field of activity in this province except agriculture?"

When the next session of the legislature opens Hon. James Duff may be assured that this question will be put more pointedly still from the opposition benches. And it will not do for him to sit back and ask Hon. A. G. McKee what he is going to do about it. The Honorable James had better get busy at once and have a tangible reply ready when the day comes.

Some firms offer Farm and Dairy for advertisement as a large privilege, declined, have read that they should do nothing in doing so, act in our

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PUBLISHER'S DESK

Some months ago, two different firms offered to buy the front cover of Farm and Dairy for the whole year for advertising purposes, and to pay us a large sum of money to secure that privilege. Both of these offers were declined. The numerous letters we have received from our readers show that we appreciate the illustrations that we publish on our front cover. This being the case we feel that we should consider the interests of our readers in a matter of this kind. In doing so, we are persuaded that we act in our own best interests.

During the past few years, several of the leading farm papers of the United States and Canada have abandoned the policy they had followed for years of putting advertisements on their front covers. These include such well-known publications as Hoard's Dairymen, The Nor-West Farmer, of Winnipeg, and the Maritime Farmer of St. John, N.B. The improvement the change has made in these publications has been marked. Gradually publishers are beginning to find that nothing is too good for their readers. That is the view of Farm and Dairy.

What times we do have with some of our subscribers over expired subscriptions. There are those who protest vigorously if we do not stop their paper as soon as their subscriptions expire. There are others who protest just as vigorously if their subscriptions are stopped. One man wrote us recently as follows:

"Please find enclosed 50 cents for my subscription to Farm and Dairy for the last six months, and please stop my paper. I have taken your paper for the last 12 years, and you were never afraid before that you would not get your pay. I can sign for lots of other papers just as good. I am sorry that you were afraid to trust me until the end of the year. This man's subscription had been in arrears since the first of the year. He wrote as he did simply because we dared to draw his attention to the matter.

Such subscribers do not realize that Farm and Dairy has thousands of subscribers, and that if each man was allowed to get in arrears, our subscription for a year, would be owed thousands of dollars in small sums by people living in all parts of the Dominion, and that our loss through this cause would be very heavy every year.

Farm and Dairy is not like a local paper whose editor knows each of his subscribers. We have thousands of readers all over the country whom we do not know personally. Thus we find it necessary to bill our subscribers more promptly than does the average local paper that we hope that our readers will bear this point in mind and be more lenient in their judgment upon our action when they receive occasional notices from us on the customary terms of their subscriptions being in arrears.

Tomatoes for London

Tomatoes packed in a mixture of sawdust and peat and shipped from the Canary Islands, seven days distant by steamship lines, are sold in Covent Garden, London, at prices ranging from twopence to sixpence a pound. In Ontario, no farther away from the British market than the Canary Islands tomatoes, when the crop begins to move, are sold at 25 cents a bushel.

This is the contrast that Mr. J. Lockie Wilson, Superintendent of the Agricultural and Horticultural Societies for Ontario, draws as one result of his trip to Britain and the

continent of Europe in quest of information for his department. The possibilities this one market presents for Ontario farmers will probably be recognized by the Provincial Government, upon the suggestion of Mr. Wilson, when the forthcoming shipment of Ontario produce is made to British markets, a consignment of Tomatoes packed in sawdust will likely be included.

Although Ontario has proven to be especially well adapted for the cultivation of tomatoes, this vegetable has not found its way to the great London market. A few years ago, shippers attempted to introduce Ontario tomatoes in England, but they were shipped in cold storage, and their condition upon arrival put a damper on the enterprise. The growers in the Canary Islands, knowing that the tomato needed dryness more than anything else, have adopted the plan of packing them in sawdust and peat. According to Mr. Wilson, tomatoes packed in this way will keep for two weeks after arriving in London.

A Well Equipped Farm Barn

J. A. Hutton, Peck Co., Ont.
To have farm buildings conveniently arranged is a source of pleasure. The time and labor saved is also a very important consideration. Fifteen years ago we built a barn, 90 x 54 feet, with a 10-foot stone basement, making use largely of the timber and lumber from the old buildings.

In our locality there was a difference of opinion as to the merits of the side or the end drive. We were in favor of the latter and planned that the rack litter box so arranged be slid along the beams arranged for it quite easily. After filling a mow we simply hitch two of the lift ropes to the empty rack, or full as the case may be, and pull it ahead into the mow. It can be run from one end of the barn to the other. We have a door at each end, and it is immaterial which we end we drive in from. On a 100 acre farm we think the rack litter about the right thing to use where only two men are doing the work.

STABLE ARRANGEMENT.

Convenience in feeding the stock is another point in favor of the end drive.

Our basement stable is 54 x 54 feet, having the horse stable and box stalls on one side and cow stalls on the opposite side and in the end next the yard, which is 54 x 22 feet. This leaves a space at the back, 54 x 14 feet, taken up by a bull pen and two pig pens. The floor is floored with cement. We find the space useful at farrowing time. There is a stable left for roots between the cow stalls and pig stalls, leaving a plenty of space for feeding stock.

THE TREAD POWER.

For a few years after building we had the tread power placed in a space now occupied by cow stalls directly under the drive way in the barn above. It was so arranged that it could be raised or lowered in a minute with ease to suit the power required. It was connected with a shaft to the cream separator room. The shaft extended to the outside, where it was connected with the circular saw when needed. One belt ran to the pulper and another to the chaff cutter in the barn above.

We made much use of these conveniences for many days. With the advent of the chaff cutter the larger capacity yet easier running tread separator, the tread power had no vacant saving room for additional cow stalls.

Yet this power has not outlived its usefulness. When the pasture gets short in the fall we start with this power to cut the corn, that is not



FROM FODDER TO BUTTER

No saving process can equal the

De Laval Cream Separators

FREE CATALOGUE

THE DE LAVAL SEPARATOR CO.
175-177 William St.
MONTREAL
WINNIPEG - VANCOUVER

needed for the silo, for the cows. The outfit is so placed that it does not interfere with the hauling in of the corn. The cutting box is placed close to a chute so that the corn falls down into the feed alley.

A HOME-MADE LITTER CARRIER.

In removing the litter from the stables we use an inexpensive carrier, made from an old horse fork cart remodelled by the blacksmith, with dumping box attachment. This convenience needs to be used to be fully appreciated.

We have an abundant supply of water, which flows by gravitation into a tank in the stable, never coming above ground until it gushes up, sparkling and sure for the free use of the stock. The water piping is so arranged that the engine is supplied when threshing or cutting corn.

Our Veterinary Adviser

WORMS IN PIGS.—(1) Give treatment for worms in pigs. Do not suggest turpentine, as everybody knows that pigs will not take it. (2) Two pigs killed recently were full of worms, and others in the same pen switch their tails and stamp their feet, and the sow seems stiff in her back. Will worms cause these symptoms?—C. N. N., Haliburton Co., Ont.

(1) Oil of turpentine has given me better results in these cases than any other treatment, and I have always found that if the pigs are starved for 36 hours or so and then given the turpentine mixed with sweet milk, they take it greedily. However, naphthalene should act. For a six months old pig, give three grains, and repeat in a week. For younger pigs, of course, the dose should be less. You might try hamala in ten grain doses.

(2) Worms might cause acid symp-

oms in the young pigs but would not affect the sow's pig.

DISTEMPER.—Horses have distemper. Give treatment.—J. B., Grey Co., Ont.

Make a liniment of three parts each of oil of turpentine and raw linseed oil and one part of liquor ammonia fortior. Rub the throat with this twice daily until it commences to blister. As the abscess forms lance them and flush the cavities out three times daily with a warm five per cent. solution of croolin. Give three times daily 4 drams hyper sulphate of soda. Feed on easily digested food, and if the patient will not eat give milk and eggs to drink. Do not attempt to drench as the patient cannot swallow well, and there would be danger of suffocation. The disease is liable to complications. If such appear, send for your veterinarian.

The Care of Boars.—The condition of the boar should always be that of thrift and vigorous health, not too fat, nor yet so lean that as a barrow he would be considered unfit for pork. If too fat he will be clumsy, slow, and in no wise sure. Discretion must be used in the feeding of the boar, for carelessness in this respect may disqualify him for the season or even make him permanently impotent. It is possible to so poorly feed a boar that his progeny will be exactly the kind his owner does not want. His feed should be nourishing and cooling, and if corn is given it should be tempered with feeds which are somewhat laxative, and be used in moderation. When service is severe his exercise may be greatly lessened, and his proper feeding is the means of balancing this inequality.—From Colburn's "SWINE IN AMERICA." This book can be had through Farm and Dairy. Price \$2.50.

Creamery Department

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

Creamery Work in Saskatchewan

W. A. Wilson, Supt. of Dairying. The work of the government in connection with the creameries of Saskatchewan was endorsed at the dairy-convention held at Saskatoon, May 19, and considerable emphasis was placed on the importance of "quality." In view of such action it is quite necessary that every effort be made to improve the quality of the cream supply at the latter date therefrom.

Creamery managers are advised to keep a strict lookout for inferior cream and advise the owner respecting cleanly methods in milking, etc., skimming at least 35 per cent. cream and cooling immediately and maintaining it at a low temperature until shipped or delivered to the hauler. Cream should be cooled to at least 55 degrees. If it is necessary to return the cream in order to secure the desired improvement do not hesitate in doing so. I want strictly first-class butter. I can sell it in the best market and get a higher price, which means more money to the patrons and increased patronage.

Some of the resolutions passed at the first Annual Conventions of Saskatchewan Dairymen, held at Saskatoon, on May 18th and 19th, 1910, follow. These should receive the careful attention of our dairymen.

1. Resolved, that this convention heartily endorses the policy of the Department of Agriculture in judiciously centralizing the creamery work as outlined by the Hon. W. R. Motherwell, and that our energies be concentrated in promoting the same, and further that we do strongly advise against the erection of our creameries in close proximity to each other.

2. That directors as well as secretaries familiarize themselves with the general business of the creameries so that grievances, real or imaginary, may be dealt with judiciously to the satisfaction of all parties concerned.

3. That the business management of the creameries under government control has been such as to warrant commendation and we do hereby express our appreciation of and confidence in their work and methods.

4. That too great emphasis cannot

be placed upon the universal adoption of the following: (1) Cleanliness. (2) The use of the covered milk pail as a means of reducing contamination. (3) The advisability of skimming a 35 per cent. cream which lessens germ content and propagation. (4) The uniform adoption of cooling cream in cans placed in ice water. (5) The regular use of a thermometer. That in order to secure a still higher excellence in the butter from Saskatchewan creameries that all patrons carefully peruse bulletin No. 15 issued by the Dairy Branch of the Department of Agriculture.

Winnipeg Cheese and Butter Awards

The butter and cheese exhibits at the Winnipeg exhibition showed greater uniformity in quality and finish than ever before at Winnipeg. Mr. U. Marker, of Calgary, Dairy Commissioner for Alberta, placed the awards. The scores were uniformly high and close. Some points of each section scored above 90 samples in a possible 100. The highest score was 95; several samples went over 95, which indicates the high quality of the

93; 5, Emile Dubois, 92½. Factory, white, made after June 15—1, J. P. O. Allaire, 95; 2, Albert Couriere, 94; 3, Emile Dubois, 91; 4, Fred S. Hadler, 90½; 5, J. P. O. Allaire, 90. Twins, white or colored, made in June—1, J. P. O. Allaire, 94½; 2, Emile Dubois, 91½; 3, J. P. O. Allaire, 91. Three young Manitobans, made in June—1, J. P. O. Allaire, 93½; 2, J. P. O. Allaire, 90. Butter classes: Creamery packages, not less than 50



Delegates to Saskatchewan's First Dairy Convention

Dairying is beginning to go ahead in Saskatchewan. The members who attended the dairymen's convention held recently at Saskatoon, were very optimistic as to the future of the industry in that prairie province. The delegates illustrated, reading from left to right, are as follows: Back row—Thos. Ross, W. A. Munro, (Supt. Bosthern Experimental Farm); A. J. Elve, F. G. Whiting, George Hertelin, Wm. Schaeff; second row—Prof. A. R. Greig, Prof. Braekon, A. E. Engesteter, Dr. Platt, C. E. Payer, W. J. Brown, Mr. Bateman, John Waddell, W. Burton; third row—A. E. Penon, W. J. Sangster, Dean Rutherford, Hon. W. R. Motherwell, (Minister of Agriculture), H. C. Laid, M.L.A.; Thos. Ross, W. McOriant, fourth row—W. A. Wilson, Supt. of Dairying; L. A. Zufelt, (Dairy Instructor). Instructor Zufelt has settled in the West only recently after many years' valuable work in Ontario as an instructor on the road and in the dairy school.

ture explaining the best methods of handling and caring for cream on the farm.

5. That in the interests of dairying a system of cold storage should be established within the province and this matter should be brought to the immediate attention of the government with a view to the establishment of same at an early date.

6. That dairymen be urged to give more attention to the improvement of their present herds from the standpoint of milk production and to provide forage crops to supplement the natural pasturing in the early spring and fall as well as sufficient food for the winter production of milk.

exhibits. The awards and scores follow: Cheese classes: Factory, colored, made up to June 15—1, A. W. Dumaine, of Saldé, 91; 2, Emile Dubois, of Richer, 93; 3, W. H. Trimble, of Red Deer, 89½. Factory, white, made up to June 15—1, Fred S. Hadler, of Greenleaf, Wis., 90; 2, Emile Dubois, 89½; 3, J. P. O. Allaire, of St. Boniface, 89.

Factory sweepstakes—J. P. O. Allaire, score 95, (maker, Chas. Gaudet, of Oak Island). Factory, colored, made after June 15—1, J. P. O. Allaire, 94; 2, J. P. O. Allaire, 93½; 3, Albert Couriere, of Lorette, 93½; 4, A. W. Dumaine,

lbs., for export—1, Jacob Thomson, of Churchbridge, 93; 2, Brandon Creamery, 92½; 3, Geo. Matheson, of Shellmouth, 92½; 4, Geo. Neilson, 91; 5, McEford Creamery, 90.

Creamery packages, not less than 50 lbs., for export, in cold storage since June 17—1, Brandon Creamery, 93; 2, Geo. Matheson, 92½; 3, Hough Bros. & Warkware, of Rosburn, 89; 4, Jacob Thomson, 88½; 5, W. B. Gilroy, of MacGregor, 87½.

Creamery prints, 20 pounds—1, Brandon Creamery, 96; 2, Geo. Numcely, of Wadena, 95½; 3, G. O. Janculos, of Neepawa, 95½; 4, Geo. Neilson, of Qu'Appelle, 94½.

Creamery, assorted packages, 14, 28 and 56 pounds—1, Jacob Thomson, 95; 2, Geo. Matheson, 94; 3, Brandon Creamery, 93½; 4, S. M. Sigurdson, of Arrol, 90½.

Sweepstakes—Jacob Thomson, 96½. Farm dairy, package not less than 40 pounds—1, Miss H. C. Taylor, of Headingley, 94½; 2, R. B. Leung, of Stonewall, 94½; 3, Robert Buchanan, of Buchanan, 92; 4, R. A. Rutledge, of St. Charles, 86½.

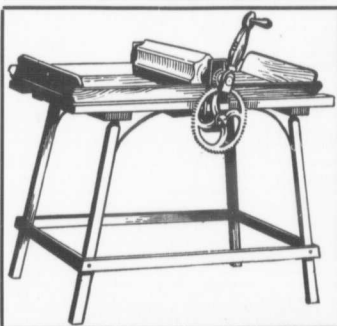
Farm dairy, ten pound prints—1, R. D. Laing, 95½; 2, Miss Taylor, 95; 3, Mrs. G. G. Clark, of Mt. Royal, 93½; 4, R. W. Parrott, of Carman, 92½.

Farm dairy, package not less than 20 pounds—1, R. A. Rutledge, 94; 2, Mrs. Peter McCrimmon, of Carman, 93; 3, Thos. Riggall, of Lillyfield, 92½; 4, R. W. Parrott, 91½.

Sweepstakes, farm dairy—R. D. Laing, 95½. De Laval silver cup for highest scoring butter made from cream separated by De Laval separator—R. A. Rutledge, 94.

Highest scoring dairy butter made from cream separated by Empire separator, special—1, Miss Taylor, 95; 2, McCrimmon, 93½.

"Enclosed find \$1 for my renewal. Can't do without Farm and Dairy."—E. Roy, Stormont Co., Ont.



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.

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

THE NATIONAL BUTTER WORKER

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

FACTORIES—Ottawa and Brockville BRANCHES—Regina, Sask., Edmonton, Alta., Hamilton, N.S.

Cheese

Makers to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion. Address letters to Cheese Department.

Increased

More cheese tario up year than date last year 33 cheese Ontario all make, five three made smaller ma in patrons figures for show an cent., with Pastures part of the spell, however and there crease in cent rains the make firm will not be quality of pared favor some cases improvement on the part of milk.

Reports, I various dista

I am getting last year at Stormont Co.

Our make and is still although the crease 1,000

—J. W. Carly

The supply ahead of last milk is somewhat ceived last

—A. Garralt,

The milk re of good qual over 1,000 lb than last year Co., Ont.

The make in ably larger to June we mad as compared R. L. Carter

Out

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—John Snelch

Last year I this year our Simms, Prescott

We have re year, but if w right away, w

August will go Prince Edward

May and Jun year, but the going to be as Lennox Co., Ont

From April '9th I had 24,8 last year for Brujien, Prescott

We have rec amount of milk J. Steele, Front

'Our make w 200 lbs. of che last year.—S. I Ont.

We are at p

Our make thi last year we milk a day; th exceed 3,500 Frontenac Co.

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to present subjects for discussion. Address letters to The Cheese Makers' Department.

Increased Make of Cheese Reported

More cheese has been made in Ontario up to the middle of July this year than was made up to the same date last year. Reports received from 33 cheese makers in various parts of Ontario show that 25 had a larger make, five had the same make, and three made less than last year. The smaller make was due to a falling off in patrons. Those makers who gave figures for their make of both years show an increase of from 18 to 33 per cent., with an average of 25 per cent. Pastures were excellent in the early part of the season. The recent dry spell, however, has retarded the grass, and there has been a consequent decrease in the flow of milk. The recent rains will help the pastures, but will not be in excess, it is thought, of the make from now on. It is thought, the quality of the milk delivered has compared favorably with last year. In some cases there has been a marked improvement due to knowledge gained on the part of patrons on the care of milk.

Reports, in part, as received from various districts follow:
I am getting more milk than I did last year at this time.—*Jan. Russell, Stormont Co., Ont.*

Our make of cheese has been greater and still greater than last year, although the milk supply has decreased 1,000 lbs. in the last few days.—*J. W. Carter, Perth Co., Ont.*

The supply of milk this year is much ahead of last year. The quality of milk is somewhat better than that received last year, especially in flavor.—*A. Garralt, Prescott Co., Ont.*

The milk received this year has been of good quality, and we have made over 1,000 lbs. more cheese to date than last year.—*W. C. Gunness, Leeds Co., Ont.*

The make in our factory is considerably larger this year than last. In June we made 29 cheese than last year as compared with 22 of last year.—*R. L. Carter, Prince Edward Co., Ont.*

During the week ending July 16th, we received 3,000 lbs. of milk more than we did during the same week last year, and that from fewer cows.—*John Schneider, Stormont Co., Ont.*

Last year I made 55 cheese a week; this year our make averages 68.—*Jan. Simms, Prescott Co., Ont.*

We have received more milk this year, but if we do not get more rain in August will go lower.—*A. Vandusen, Prince Edward Co., Ont.*

May and June were better than last year, but the make in July is not going to be as good.—*P. J. Murphy, Lennox Co., Ont.*

From April 25th, 1910, until July 16th I had 24,869 lbs. more milk than Bruijnen for the same period.—*T. J. Steele, Frontenac Co., Ont.*

We have received about the same amount of milk this year as last.—*J. Steele, Frontenac Co., Ont.*

Our make will be smaller than last year. This is largely due to a number of our patrons retiring from farming.—*H. Bennett, Oxford Co., Ont.*

We are at present making about 200 lbs. of cheese a day more than last year.—*S. H. Pridwy, Hastings, Ont.*

Our make this year has fallen off. Last year we received 4,000 lbs. of milk a day; this year we have not exceeded 3,500.—*Richard Wright, Frontenac Co., Ont.*

We received up to June 25th about 1,900 lbs. more milk per day than in 1909, but are now down to the same amount.—*F. Bwen, Grenville Co., Ont.*

Last year we received about 7,500 lbs. of milk per day; this year about 9,200.—*Eugene Fortus, Glengarry Co., Ont.*

We are making one cheese a day more than regular.—*G. H. Farwell, Hastings Co., Ont.*

The amount of milk received this year has been large compared with the two previous years, and we expect it to be a big season.—*G. H. Summers, Dundas Co., Ont.*

There has been a great deal of milk this year as compared with last.—*Wm. Faylor, Grenville Co., Ont.*

We made 45 more cheese in May this year than in the same month last year, and 22 more in June.—*J. M. Wilkinson, Hastings Co., Ont.*

Our make has fallen off this year two or three times a day, but we have six less patrons than last year.—*O. J. Stewart, Lanark Co., Ont.*

We are just making one more cheese a day this year than last.—*L. H. Thornton, Frontenac Co., Ont.*

The largest amount of milk we have received this year is 13,800 lbs. as compared with 13,300 last year.—*K. A. Johnston, Peterboro Co., Ont.*

We have received about as much milk this season up to date as we did last season, and are short three patrons.—*J. B. Hennessy, Hastings Co., Ont.*

I have more milk coming in than I had this time last year, but have more patrons.—*Geo. Parker, Frontenac Co., Ont.*

The flow of milk is much greater this year than last.—*R. L. Kerr, Dundas Co., Ont.*

The flow of milk is less than we had looked for, but is ahead of this time last year, due to extreme heat, the quality of milk has not been as good as last year.—*H. L. Thompson, Lennox Co., Ont.*

Our make of cheese has been fully one-third greater this season than last.—*Geo. Ivey, Northumberland Co., Ont.*

The milk supply is a good deal larger now than last year. The outlook for the balance of the year is good.—*J. H. Perault, Carleton Co., Ont.*

Our make is somewhat better than last year. We are making 15 cheese a day as compared with 11 at this time last year.—*J. O'Riley, Brant Co., Ont.*

The milk supply has been good, a little better than last year.—*Sandy Clarke, Haldimand Co., Ont.*

Our factory is doing better than it has for the past three seasons. One of our patrons sent 16,000 lbs. of milk in May as against 7,000 lbs. in May last year.—*H. J. Windley, Frontenac Co., Ont.*

The milk supply is about one-third greater than last year, due to good cows and increase of pasture. My make ending June 30th is about 1,400 lbs. greater than last year.—*P. Griffin, Frontenac Co., Ont.*

The Fat Plus Two System

Thos. J. Millar, Grenville Co., Ont.
At one of our factories several years ago, the patrons adopted the system of paying for milk by the fat-plus-two system. They have been so well pleased with this method of dividing the proceeds that it is never questioned at our annual factory meetings but is taken as a matter of course. Though some of the patrons have not nearly so high a test as others, they reason that all kinds of farm produce have a recognized standard by which it is bought and sold. Milk (one of the most valuable products of the farm) is handled, with quantity as a basis of value—little attention being paid to quality. It is only fair to the man having richer milk that he should get the benefit of it.

The straight fat basis is the proper way to figure out a division of the proceeds. Since reading the editorial in Farm and Dairy of April 7th, (which contains a report of experiments made at the Eastern Dairy School), I am more firmly convinced than ever that such is the correct method.

Wind Mill to Elevate Whey

Chas. Shook, Frontenac Co., Ont.
We use a wind mill to elevate the whey in our factory and it gives good satisfaction. The lower tank is round and the wind mill is to one side and so allows of a straight lift. There is a three inch brass cylinder fitted with a two inch pipe. A half inch rod with one end flattened which is bolted to the shafting runs down the centre of a two inch pipe and a hitch to the valve in the cylinder. The cylinder is braced with wire attached to the top of the piping and down to the legs of the mill. These wires are twisted tight to hold the cylinder from lifting off the tank below. A nut runs down the bottom of the cylinder has holes cut in it so that it can suck up the whey. If dirt gets into the cylinder it is very apt to clog up the holes in the nipple and prevent the whey running in properly.

We have a six inch galvanized pipe going to the surface of the whey, which is split at the lower end and bolted to the bottom of the tank. This pipe is punched full of holes upward to allow the whey to get through. These holes should be small enough to keep an ejector connected in case there should be no wind. There were only four days last summer in which we could not elevate with the mill.

Dairy Notes

Owing to the fact that many factories whose shipping points are on the G.T.R. are unable to send out their cheese and they may possibly suffer serious loss, the following resolution was moved by Mr. Steinhoff and carried unanimously, at the Woodstock Cheese Board on July 21st:

Whereas the strike of conductors and trainmen on the Grand Trunk Railway system has had the effect of paralysing the freight traffic on that system, and thus seriously jeopardizing the dairy interests of Canada, including the products of many cheese factories represented at this Board, therefore, be it resolved that this Board respectfully urge that the Government use every possible means to accomplish a settlement between the Railway Co. and its employees by arbitration or negotiation, so that resumption of the movement of perishable products may immediately

take place. And that a copy of this resolution be sent to Hon. McKenzie King, Minister of Labor, and to Mr. C. M. Hays, President of the G.T.R. system."

"We are renewing our subscription to Farm and Dairy. We like it and should miss it very much if it stopped coming."—*W. Bird, Russell Co., Ont.*

Deserve To Be Laughed At

Makers and agents of common cream separators tempt you to laugh at them. They foolishly assume that you are a victim of modern separator construction when they ask you to believe that their out-of-date cream separators, containing their despoiled rubber parts as bad, are modern. They desire to be laughed at for trying to hide the facts and for failing to realize that you know, as we know, of Sharples Dairy Tubular Cream Separators.

Sharples Dairy Tubular Cream Separators

contain neither disks nor other contraptions, yet produce twice the skimming force, skim faster, skim twice as clean, wear longer and are much several times easier than their common machines. And then from imitating Tubulars.



The full pan contains disks from our common separator. The other pan contains the only piece used inside Sharples Dairy Tubulars.

The manufacture of Tubulars is one of Canada's leading industries. The World's Best. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines sells.



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

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

WANTED—Cheese makers the coming season to send descriptions to Farm and Dairy, Peterboro, Ont. Good cash commission for each subscription taken. Write Circulation Manager, Farm and Dairy, Peterboro, Ont., for sample copies for your patrons. Samples sent free on application.

WANTED, AT ONCE, Experienced Creamery Assistant for balance of season. Apply with references to H. Weston Parry, Princeton, Ont.

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



THE IDEAL GREEN FEED SILO

Means More Milk
More Profit
and Cheaper Feed.

Do not be satisfied with experimental silos, get the one that by years of use has proved its worth. In justice to yourself you CANNOT AFFORD to use any other. Be guided by the verdict of our users, the only men who are the most competent to judge.

One of our Silos will furnish you June Feed in January weather. Built in all sizes, from lumber soaked in our specially prepared wood preservative.

FREE CATALOG ON APPLICATION

Canadian Dairy Supply Company, Limited
MONTREAL, P. Q.



YOU will find as you look back upon your life, that the moments that stand out, the moments when you have really lived, are those moments when you have done things in the spirit of love.

—Henry Drummond.

MISS SELINA LUE

A NOVEL OF GOOD CHEER BY
MARIA THOMPSON DAVIESS

Copyright, 1909, The Bobbs-Merrill Company

(Continued from last week)

SYNOPSIS OF FOREGOING INSTALMENTS

Miss Selina Lue, generous and tender of heart, and endowed with what is called "faculty," keeps the grocery at River Bluff. One day Bennie Dodds runs in to the grocery to ask her to come and sew up his sister's thumb which she has caught in the machine. On her return she feeds the five babies whom she cares for in soap boxes by a sunny window in the rear of the store. Her friend, Cynthia Page, a charming young girl, calls on her and learns that she has taken a young artist, named Alan Kent, to board. They are introduced and Cynthia is annoyed at the young man's apparent assumption of instant friendliness, and leaves abruptly. Miss Selina tells the young people at a later visit of her encounter with a city club woman, and how she came to the Bluff.

"WHAT," inquired Mr. Alan from the doorstep, "does the brute do?"

"Well I wouldn't sneerfully call him a brute, I think," said Miss Selina Lue, as she shook out her duster and began on the shelf of canned tongue. "He runs a laundry wagon and he says it is an advertisement for the house for him to be a stylish dresser, but I can't see why the house has to have his pants pressed every morning and have him wear purple socks and tan shoes, when his wife is all drug out with trying to piece along and keep going. Sometimes I think it must be vanity in Mr. Simmons, and vanity in a man is like a turkey-gobbler strutting in November."

"What about vanity in the ladies, Miss Selina Lue? You surely don't approve of that."

"Now, Mr. Alan, you're mad at what I said about the men and are trying to get even with me. And Miss Selina Lue has taken a young artist, named Alan Kent, to board. They are introduced and Cynthia is annoyed at the young man's apparent assumption of instant friendliness, and leaves abruptly. Miss Selina tells the young people at a later visit of her encounter with a city club woman, and how she came to the Bluff."

"I don't believe He would quite stand for that amount of pride and grudge Mr. Simmons the purple socks," murmured Mr. Alan over his cigar in careful softness, and immediately steered Miss Selina Lue off the disturbing topic of her friend's perfections.

"Anything interesting in the family histories of the other two soap-boxers,"



Fine Commodious Farm Home Owned by Mr. R. A. Deyell, Peterborough, Ont.

A good style country farm house, made of brick. The above house is 36 x 37 ft., with cresting. Two bay windows in front, on each floor, and a veranda on the first floor, make a comfortable and pleasing arrangement. The ceiling in this house are 10 ft. high. There is one bedroom down stairs and a fine large kitchen and pantry. The root and furnace cellar both have concrete floors.

Miss Selina Lue? It seems the thing on the Bluff to know all about your neighbors, and my intimacy with your kiddies grows apace." There was a winning wholesomeness in Mr. Alan's voice that struck a kindred note in the soul of Miss Selina Lue, and she re-

veled in the unobscuring of herself to him. His dark eyes shone with interest and his straight mouth had an unexpected quirk in the left corner, easily interpreted as indicative of a sense of humor.

"Well, Pattie Tyne the little one that can't hardly set up good yet, is just so to speak a transient, as her ma has gone on a visit to her sister over to Union City. After she had got the other five ready to go, there just wasn't nothing to fix Pattie up in fitter for a visit, so she left her with me. I wash the blue gingham out of nights and piece out with a dress of Blossom's when it's needed bad. Looks like Miss Tyne drags the sewing machine and a bolt of calico like they was typhoid snailpox."

"And last, but not least, tell me the tale of Blossom, the lady of my heart, the only person who really appreciates me for my true worth which is peppermint candy in limited quantities and a shoulder cushioned in brown and exalted in height. Blossom is a lady of discernment and has the courage of her predilections."

"Mr. Alan," said Miss Selina Lue as she sat down on the step by him and, picking up the little white valise bonnet he had let drop off the nodding head of that lady in question, began to plait the ruffle with caressing fingers, "they ain't many people I would tell the story of her to. One way or another, I have shot up every soul on the Bluff as has asked me. Of course Miss Cynthia knows, for people can't help talking pitifulness to her, but the rest just found her here, and that is all they need to know."

"It was a year ago last Christmas it happened to me and Charity to find her. About dark when I was busy to death doing up supper truck—as you see, that's my busiest time of day—a girl come in here I never saw before and she looked wild and white. She carried a bundle in her arms, but I never suspicious anything, so I jest sold her a box of crackers and she went out. Then I plumb forgot her, as I oughten to have done, for she wasn't happy-seeming, and such as she oughter to be on my mind."

"Miss Selina Lue, please forgive me for asking. Perhaps I ought not to know." And Mr. Alan caught one string of the limp little bonnet and curled it tenderly around his finger.

"I really do—love the little mite, if I

one as can speak it. It ain't the lady's fault no way, that I found her laid in Charity's stall, which is like a manger we have both heard on many a time. Charity had a new calf then what I am in the habit of turning in with they mother on cold nights if the milk do run short in the morning, and that's what saved the child's life. Charity had crowd her spotted baby in a corner of the stall to keep it warm and had hung her head over Blossom and her own baby in such a manner so to honor them both—and there I found her. I wish I knew where that wild-eyed girl-mother is a-wandering, lonesome and unhappy."

"She chose the place to leave the baby—wisely," said Mr. Alan, as he walked over to the counter and slipped his finger into the curled, pink, little hand which grasped it firmly even from the depths.

"Yes, you can always put dependence in the sense and good feelings of a cow," answered Miss Selina Lue, with sweet unconcernedness. "Did I want to thing a noble life the other lead—always a-giving for other people who don't show no more appreciation than a bucket of bran and a little water? If it sees and sees more, I want to thing a cow helped to watch over Him that night. It makes me feel easier about Mary; for cows they knows things same as humans."

CHAPTER III.

HOW MISS SELINA LUE CAME TO THE BLUFF.

"I don't hold with thinking up bad happenings onto people, for sometime it might kinder hit 'em on some blind side we don't know about and take."

—Miss Selina Lue.

"Now," said Miss Selina Lue with a sigh of relief, "every sting is tied up. The campfire held out fine and there are no more things to be reckoned with about the yellow-jackets and put your mind on the making of the lemonade. I'll get the lemons." And as she spoke she rose from the top step and started into the grocery. She paused for a moment and ran her eye over the group huddled along the steps while laughter strove with sympathy in her expression.

Just at that moment Miss Cynthia came down the Hill with her rose hat swinging in her hand and her curls a-ruffle with the breeze. She paused aged crew of youngsters with round-eyed amazement. And a picture of wholesale catastrophe they presented! Bennie sat on the top step. Ted neatly around his head was a huge white bandage from which his freckled face peered with swollen solemnity. Ethel Maud drooped on the corner of the step below and nursed a red and enlarged little wing that had blown up her ear when last Miss Cynthia had beheld it. Luella Kinney choked back sobs with an abnormally fat mouth, which she kept fast and firmly, seemingly deriving comfort therefrom. Around one ankle was tied a blue gingham rag, which set off the pink bit that swathed one of Ethel Maud's brown little feet. Several thin knees had seemingly doubled on their mates in matter of size. The rest of the congregation had suffered with more or less poignancy. And an aroma of mingled tears and cambray rose from the steps.

"Why—why?" gasped Miss Cynthia, "was there a—cyclone?"

"Oh, no," answered Miss Selina Lue cheerfully. "Just a little yellow-jacketed wind, but you must have got mad at the children. They have 'most forgot all about it, fer we was jest about to make a whole water bucket full of lemonade. Nice day, ain't it, for drinking such as lemonade?"

Miss Selina Lue bestowed a significant glance on Miss Cynthia, as she spoke, which was very enlightening as to her rational method of

treating Cynthia I her ment friend, ication bac sobs.

"Yes, it's thustastic drink every body must from the view es, and Ethel lemons. up, and help sque And front of cheerful pains oves, the from the squeezed drank to they had third conce they conce water and rying the ment of M friend, to they consid lemonade g.

"Lands Lue as she wain Lue, she bare feet ar down the h rukkus we was afraid sick before switched."

"Yes," a she sented Lue, exhaue efforts she 'ic was pro 'to direct pr did you wa 'Well lay Seta Lue, some, I just age is alve the pain. light and silements will one say mak

"Leta of agreeing with Selina Lue, as she laught above her.

"Course of ple think a Jericho, but of it is let I wished we that mother morning, whi cyclone-trout children get bonnets while raise 'em."

"A mother Miss, Cynthia "Oh, she harm. She kinder, frolics come into s'clock this quick for her the bill-cim feeble and pin fire in her eye she talked."

"Did she purposes of indignantly. "Oh, yes I she put it to of her, but it as this was glad enough come over to listen 'stid of

ney was as p "And what to went about Cynthia again (Conti

Sugar and former in tin or crockery re

treating the hornet cyclone. Miss Cynthia hastened to lend the aid of her mental influence to that of her friend, for she saw that her consternation had started a faint echo of sois.

"Yes, indeed it is," she affirmed enthusiastically. "I feel as if I could drink several glasses myself. Somebody must draw the water for that while you wait."

"Yes, Bennie can do that right you and Ethel Miss and Lucella roll the lemons. There are no glasses to hunt up, and everybody must get ready to help squeeze."

And for at least a half-hour the front of the grocery teamed with cheerful activity. If sharp little pains occasionally intruded themselves, they found no encouragement from the busy drink-mixers, who squeezed and stirred and sloped and drank to their hearts' content. After they had themselves consumed the third concoction from the yellow rinds they conceived the idea of adding water and sugar still again and carrying the bucket down for the refreshment of Mr. Leeks, who was a dear friend to be remembered at what they considered an early stage of the lemonade game.

"Lands alive!" said Miss Selina Lue as she sank on the top step and wiped the scumming pair of bare feet and fluttering rags disappear down the hill, "that's almost the worst ruckus we ever had on the bluff! It was afraid they would cry themselves sick before I could get they thoughts switched."

"Yes," answered Miss Cynthia as she seated herself beside Miss Selina Lue, exhausted and panting with the efforts she had made in their behalf, "it was pretty bad and I was out of the direct path of the hurricane. How did you weather the full force?"

"Well you know," answered Miss Selina Lue, "I've got 'em trained some. I always did believe that courage is just to keep going and ferget the pain. I don't hold with making things of suffering, but if distractions will help to ease along, I for one say make a bucket of lemonade."

"Lets of people in the world are agreeing with you on that line, Miss Selina Lue," answered Miss Cynthia as she laughed up into the kind eyes above her.

"Course common sense makes people think alike, from Tennessee to Jericho, but it's funny how little of it is let loose all along the road. I wished we could had more of it in that mothers' meeting we had this morning, which is the cause of all this cyclone-trouble, along of letting the children get away and into a mess of hoines while 'er talking about how to raise 'em."

"A mothers' meeting?" questioned Miss Cynthia in astonishment. "Oh, she didn't mean any real harm. She was sent out by some kinder foolish Women's Union. She come into the grocery about nine o'clock this morning. I got a chair quick for her to puff and rest in from the hill-climb. She looked kinder feeble and pinched, but my! she had fire in her eyes and she hot up when she talked."

"Did she come up for—missionary purposes?" demanded Miss Cynthia indignantly.

"Oh, yes I reckon that is the way she put it to herself. And it was kind of her, but it did set back the work, as this is wash-day. Miss' Dobbs was going to bring her, who and come over to Miss' Peter's and set and listen 'sid of rubbing, but Miss' Kinney was as put out as could be."

"And what did she have to impart to 'er about child culture?" Miss Cynthia again demanded.

(Continued next week.)



Sugar and salt are best kept, the former in tin, the latter in wooden or crockery receptacles.

The Home Canning of Fruits and Vegetables

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

(Continued from last week.)

VEGETABLES.

Cut as when preparing for market, having stalks of the proper length to fill the jars. Wash in fresh, cold water, and pack firmly. Arrange stalks as much as possible, having the tip-end up. After jar is filled in this way, take three or four stalks and force in centre of jar tip end down. This will make the pack more firm. Put in one-fourth of a



Fig. 4 Jars in Vessel Placed on Stove Ready for Cooking.

level teaspoonful of salt and fill jars entirely full with fresh, cold water. Boil 15 minutes, seal tight and continue boiling 45 minutes. At the end of this time, remove jars and set them aside for 24 hours. On second day, place jars in vessel as directed on first day, and boil one hour. Again remove jars and let stand 24 hours, and on the third day cook as directed for second day.

BEETS.

Young, tender, blood-red varieties are best. Boil in an open vessel until cooking comes off easily. Peel, slice, quarter or can whole, as desired. Pack firmly. Fill jars full and add fresh, cold water until jars are entirely full. If a mild pickle is desired, take equal parts of water and vinegar, sweeten to taste, and fill jars with this mixture instead of water. Boil 10 minutes, seal tight and continue boiling 40 minutes. Remove jars, set them aside for 24 hours. On second day, place jars in cooking vessel as directed on first day, and boil 50 minutes. Again remove jars set aside for 24 hours, and on third day cook as directed for second day.

BEANS (LIMA)

Carefully hull by hand, removing all discolored, broken and over-ripe beans. Can as soon as possible after shelling, as Lima beans lose their flavor very quickly after being shelled. Pack firmly. Fill jars to within half an inch of the top, add one-fourth teaspoonful of salt and fill entirely full with fresh, cold water. Boil 10 minutes seal tight and continue boiling 45 minutes. Remove jars and set aside for 24 hours. On second day, place jars in cooking vessel as directed on first day and boil one hour. Again remove jars and set aside for 24 hours, and on the third day cook as directed for second day.

BEANS (STRING, SNAP OR WAX).

Select freshly gathered pods, about three-quarters grown. Carefully remove all strings and break or cut in pieces about one inch long. Put in a clean sack or wire basket and boil 5 minutes. Drain out and, after cooling a little, pack firmly. Fill jars almost full, add one-fourth level teaspoonful of salt and fill entirely full with fresh, cold water. Fill this vessel and cook on each of three days exactly as recommended for Lima bean.

HONEY VINEGAR.

Mix 1 pt. honey with 1 gal warm water, cover with in a warm place, and let ferment. It will soon turn to vinegar.

In Cherry Time

UNCOOKED CHERRY BREAD PUDDING.

Cut slices of dry bread, spread with butter, place in layers in a pudding dish, and pour over them steamed or spiced cherries. Let stand about 1/2 hour, then serve with a custard sauce.

CHERRY PIE.

Stew the cherries in a very little water, with sugar to taste, then strain through a coarse sieve to get rid of the pits. Add about 1 table-spoon each of flour and butter mixed, and pour in a paste-lined pie plate. Cover with a crust, prick or slash, and bake.

CHERRY JAM.

Stone the cherries and weigh. Allow equal parts of fruit and sugar. Place in preserving kettle and let stand over night. Then place in the jam looks jelly-like. In making jamaes, mixtures of cherries and currants and raspberries are very nice.

CANNED CHERRIES.

Tart fruit is best for canning. Allow 3/4 lb. sugar to each lb. fruit and 1/2 cup water. Boil sugar and water 10 minutes to make a thin syrup, then cook a small quantity of the fruit at a time in the syrup. Fill the cooked cherries into hot, sterilized jars and when the jar is full pour over the hot syrup to overflow jars. If there is not sufficient syrup, add boiling water. Introduce a silver spoon or knife between fruit and jar, so that all air bubbles may rise to the top and break.

PICKLED CHERRIES.

Leave about an inch of the stems on the cherries. Place in jars in layers alternating with thick layers of powdered sugar. Fill the jar in this way 3/4 full, then fill up with cold, spiced vinegar, and seal. Another way the cherries and pour plain vinegar over the fruit and sugar.



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A Farm and Dairy Agent

Our snap shot shows Master D. Earle Crosswell, of Glenarry Co., Ont., who has already in a short time secured a club of six new subscribers for Farm and Dairy. He is now working on a larger club, and Dairy's many fine premiums. If you have not seen one of our Illustrated Premium lists, kindly send for one to our Circulation Manager. They are sure to interest you.



Corn meal spoils more readily than flour, and for most families it is best to buy in small quantities.



Scouring, even of the most enthusiastic kind, always fails to remove traces of burned food in a kettle. This may be remedied by placing the kettle over a fire and filling it with water to which has been added a little baking soda. After the water has boiled a few minutes remove from the fire and wash the kettle, it will be in as good a condition as when new.

A Wonderful Washer



Momentum Balance, Wheel working on ball bearing, keeps the "Champion" Washing going with very little effort. A new idea in washing machines. "Favorite" Churns, just easy churning. 3 str. If your dealer won't handle them, write us for booklets and send name of nearest you to the dealer. 77 DAVID MAXWELL & SONS., - ST. MARY'S, ONT.

Vines for Shade

THE MORNING GLOOM.

Where shade is desired for porches and verandas the morning glory is the best all-around vine; if one having attractive flowers is wanted. This, if thickly planted, will furnish such a mass of foliage that the sun cannot penetrate it by the middle of summer, and from that time on to the coming of frost it will daily be a flower show in itself. In this vine we have the combination of profuse foliage and attractive bloom, which is quite rare among this class of plants. Let me say right here that this vine should always be given stout strings as a support. Binder twine is excellent for this purpose. The vines are so heavy when fully developed that they are likely to break ordinary twine, especially after a shower, and a mass of vines once torn from their support cannot be put back satisfactorily. For training up about doorways and windows this vine is unequalled.

THE JAPANESE HOP.

Another very satisfactory annual is the Japanese hop. This is not attractive, so far as flowers are concerned, but its foliage—especially that of the variegated variety—is very pleasing. Its large, overlapping leaves furnish all the shade anyone can ask for. The green and white of its foliage make the plant quite as showy as flowers would.



To relieve a burn, put affected part in clear kerosene and hold it there for a while and you will find that all the pain will cease. Keep kerosene away from fire. Cover with a coating of flour to keep out air and it will leave no scar.

MACE'S
NEW PATENTED ICE CREAM FEZZER AND BUTTER BLENDER
Does away with all the mess and turns milk into delicious butter in three minutes. It's something absolutely new and should be known in every home.

Ask your dealer to explain this wonderful machine to you or write us for descriptive literature and book of recipes. Machines sent express prepaid. Give us address in Canada, on receipt of \$3.00. Write us, Montreal, Agents wanted.

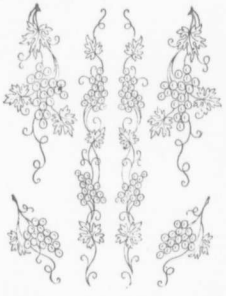
Mace Mfg. Co., Ltd., Toronto, Ont.

Embroidery Designs

Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.



519 Design for Braiding the Front Collar and Cuffs of a Shirt Waist or Blon c. Especially adapted to May Mantion Pattern No. 6579. Soutache and Coronation Braids and rat-tail cord are appropriate.



513 Design of Grape Clusters and bands suitable for embroidering coat collars and cuffs, shirt waists, blouses and lingerie waists, skirts and decorative objects. Patterns for stamping of separate pieces and two bands fifteen inches long are included.



512 Its Design for Braiding a Border or Band. Soutache and coronation braid and rat-tail cord are appropriate.



520 Design for a Braided Hat with Scalloped Edges. Brim and Crown are given. Soutache and coronation braid and rat-tail cord are appropriate.

The Upward Look

Difficulties Concerning Doubts

"A great many Christians are slaves to an inveterate habit of doubting," writes Harriet Whitel Smith, in her helpful little book: "The Christian's Secret of a Happy Life." "I do not mean doubts as to the existence of God or the truthfulness of the Bible, but doubts as to whether their own personal relations with the God in whom they profess to believe, doubts as to the forgiveness of their sins, doubts as to their hopes of heaven, and doubts about their own inward experience. No drunkard was ever more in bondage to his habit of drink than they are to their habit of doubting. Every step of their spiritual progress is taken against the fearful odds of an army of doubts, that are forever lying in wait to assail them at each favorable moment. Their lives are made wretched, their usefulness is effectually hindered, and their communion with God is continually broken, by their doubts. And although the entrance of the soul upon the life of faith does, in many cases, take it altogether out of the region where these doubts live and flourish, yet even here it sometimes happens that the old tyrant will rise up and vex the life of faith, and will cause the feet to stumble and the heart to fail, even when he cannot succeed in utterly turning the believer back into the dreary wilderness again. "It seems strange that people whose very name of Believers implies that their own chiefest characteristic is that they believe, should have to confess that they have doubts. And yet it is such a universal habit, that I feel if the name were to be given over again, the only fitting descriptive name that could be given to many of God's children would have to be that of Doubtlers. In fact, most Christians have settled down under their thoughts as to a sort of inevitable malady, from which they suffer acutely, but to which they must try to be resigned as a part of the necessary discipline of this earthly life. They lament over their doubts as a man might lament over his rheumatism, making themselves out as 'interesting cases' of special and peculiar trials, which require the tenderest sympathy and the utmost consideration.

A NEW FORM OF DOUBTS.

"This is too often true even of Believers who are earnestly longing to enter upon the life and walk of faith, and who have made, perhaps, many steps towards it. They have got rid, it may be, of that doubts that once tormented them, as to whether their sins are really forgiven, and whether

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 requests for catalogue. You can have this FREE, for a club of two new subscribers to Farm and Dairy, at 10 cents. Get the boys and girls to work securing two or three neighbors to subscribe. It will surprise you how easily this can be done. Address Ostromation Manager, Farm and Dairy, Peterboro, Ont.

they shall, after all, get safe to heaven; but they have not got rid of doubting. They have simply shifted the habit to a higher platform. They are saying, perhaps, 'Yes, I believe in my sins and in God, and I am a child of God through faith in Jesus Christ. I dare not doubt this any more. But then—'and this 'but then' includes an intermediate array of doubts concerning most of the declarations and promises our Father has made to His children. One after another they fight with these promises, and refuse to believe them until they can have some more robust proof of their being true than the simple word of their God; and then they wonder why they are permitted to walk in such darkness, and look upon themselves almost in the light of martyrs, and groan under the peculiar conflicts they are compelled to endure.

SPIRITUAL REBELLION.

"Spiritual conflict. Far better would they be named did we call them spiritual rebellions! Our fight is to be a fight of faith; and the moment we let in doubts, our fight ceases, and our rebellion begins. I desire to put forth a vigorous protest against this whole thing. Just as well might I join in with the lament of a drunkard and unite with him in prayer for the soul of another, because of his fatal appetite, as to give way for one instant to the weak complaints of these enslaved souls, and try to console them under their slavery. To one and to the other we have to do nothing else but proclaim the perfect deliverance which the Lord Jesus Christ has in store for them, and beseech, entreat, and importune them, with all the power at my command, to avail themselves of it and be free. Not for one moment would I listen to their despairing excuses. You ought to be free, you can be free, you must be free.

Will you undertake to tell them that it is an inevitable necessity for God to be doubted by His children? Is it an inevitable necessity for your children to doubt you? Would you tolerate your doubts a single hour? Would you pity your son, and console with him, and feel that he was an 'interesting case' if he should come to you and say: 'Father I am such a doubter that I cannot believe in God's love and forgiveness;' and no one seems shocked at it. You might just as well say, with a live complacency: 'Oh, but I am such a liar that I cannot help telling lies,' and expect people to consider it a sufficient excuse. "In the sight of God, I verily believe that in some cases, as displeasing as lying. It certainly is more dishonoring to Him, for it impugns His truthfulness and defames His character. John says that he that believeth not God hath made Him a liar;' and it seems to me that hardly anything could be worse than this to fasten on God the character of being a liar! Have you ever thought of this as the result of your doubting?— I. H. N.



A Place for Thread

Of the many disorderly things in the home the work box is usually the most so. I decided mine should be in better order. I took a lath 24 inches long and placed nails with small heads about every inch along the entire length. I painted this white. I put three long nails in the wall near the sewing machine, placing the lath on these, which I also painted white. A spool was slipped over each nail on the lath; it is stationary. I have found it so convenient, and when sewing outdoors or in another room I am enabled to carry with me all I have, all colors and numbers, have no work box and my box has therefore improved by the use of this,

The Sewing Room

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

GIRL'S PRINCESS DRESS 448



Princess dresses are as much in vogue for the school girls as they are for the grown ups. This one is childish and attractive, yet smart in the extreme. There is a long unbroken panel at the front, while at the sides and back the dress is made with a flounce. It includes a pretty little yoke, or chemise, and quite novel sleeves that can be made either in three-quarter or full length. Material required for medium size is 6 1/2 yds. 24, 4 1/2 yds. 32, 3 1/2 yds. 44, with 1/2 yd. 18 in. wide for the yoke, 7 yds. of banding. The pattern is cut for girls of 8, 10, 12 and 14 yrs., and will be mailed on receipt of 10 cts.

BLOUSE WAIST 630



The pretty dressy blouse waist closely at the front makes one of the features of the season. Here is a model that is closed invisibly and worn with a separate shield. This shield can be made with a Dutch neck, or with a collar. Material required for medium size is 3 yds. 24, 3 1/2 yds. 32, 2 1/2 yds. 44 in. wide, with 1/2 yd. of the trimmings. The pattern is cut for a 34, 36, 38, 40 and 42 in. bust, and will be mailed on receipt of 10 cts.

TUCKED SEMI-PRINCESS DRESS FOR MISSSES AND SMALL WOMEN 667.



Semi-princess dresses made with trimming at the left of the front of the blouse, suggesting an opening at that point but which are really closed at the back, are novelties of the season. Here is one that is dainty and charming, especially designed for the thin material that can be tucked with like ease. It is finished with a straight flounce at the lower edge and this flounce can be either tucked or gathered. Material required for medium size is 10 1/2 yds. 24 or 27, 7 yds. 32 or 34, 6 1/2 yds. 44 in. wide, with 1/2 yd. of banding, 3/4 yd. of ribbon, 5/8 yd. 39 for the chemise and under sleeves. The pattern is cut for girls of 14, 16, and 18 yrs. of age, and will be mailed for 10 cts.

BLOUSE WAIST 641.



The blouse waist, waist which includes a chemise, is a pretty one, and is much worn this season. Here is a model that can be utilized both for the gown and for the separate blouse. Material required for medium size is 1 yds. 21 or 24, 3 1/2 yds. 32 or 34, 2 1/2 yds. 44 in. wide, with 1 1/2 yds. of tucked silk and 5/8 yds. of banding. The pattern is cut for a 32, 34, 36, 38, 40 and 42 in. bust, and will be mailed on receipt of 10 cts.

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OUR FARMERS' CLUB

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PRINCE OF WALES. RICHMOND—All crops are looking well...

QUEBEC

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STORMONT C. O. ONT.

STATHROMB.—Hay is an exceptionally good crop...

DUNDAS C. O. ONT.

WINCHESTER.—Crops are fine. Some of the early grain will soon be ready to cut...

CARLETON C. O. ONT.

ASHTON.—Prospects for all crops are very promising...

GREENVILLE C. O.

FARMERS' UNION.—Oats and barley are the principal grain crops this season...

HASTINGS C. O. ONT.

TURBIEFF.—Farmers are in the midst of haying...

Never without a Bottle. KENDALL'S SPICIN CURE. Dr. B. J. KENDALL Co., Emsbury Falls, Vt.

being raised this year. Farmers are congratulating themselves on the increase of average of wheat...

PETERBORO C. O. ONT.

OAK LAKE.—Farmers began to look blue days ago...

EDMUNDS C. O. ONT.

GOVILE.—The apple crop is so very promising...

WOODVILLE.—Crops are looking fairly well.

Hay was a good crop. Haying is still in progress...

A Welcome Visitor

"Farm and Dairy is a welcome publication in our home. The surprise to me is that every farmer does not get hisself...

been helped by scattered showers since. The outlook for high grain prices is bright.

WELLINGTON C. O. ONT.

FERGUS.—The weather has been warm and dry, but is cooler now...

OXFORD C. O. ONT.

WOODSTOCK.—There is a great shortage of apples this year...

MUSKOGA C. O. ONT.

GRAVENHURST.—Crops of all kinds are growing fine after the dry spell in June...

BRITISH COLUMBIA.

NORTH WESTMINSTER C. O. B.C. CAMP SLOUGH.—Haying is in full swing...

I enclose \$1 for my renewal to Farm and Dairy. I intend to ask for "A Visitor On The Horse" or write you. Dr. B. J. KENDALL Co., Emsbury Falls, Vt.

HOLSTEIN-FRIESIAN NEWS

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

VALUE OF SHORT TIME OFFICIAL

During the year from Jan. 25 to Feb. 7, 1910, records for 150 cows have been accepted for entry in the Holstein-Friesian Advanced Register...

Forty-six full aged cows averaged: age, 7 years, 4 months, 14 days; days from calving, 21; milk, 481 lbs.; per cent. fat, 3.60; fat, 16.85 lbs. ...

This herd of 127 animals, of which one half were heifers with first or second calves, produced in seven consecutive days 52,984 lbs. of milk containing 1,855.37 lbs. of butter fat...

Some dairy writers are inclined to assert that the short time official test is of no practical value...

LAND PLASTER

Car Lots or Any Quantity. WHITE FOX BRAND. TORONTO SALT WORKS. G. J. CLIFF, Manager.

The short time dash in no way indicates how well a dairy cow has done up during her entire lactation period...

During my nearly five years' term as superintendent of Advanced Registry, many thousands of these short-time tests have passed through my hands...

Those who point out that Jersey breeders do not have nearly 600 cows entered in the semi-official long-time test...

The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself.



never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl...

The Imperial Oil Company, Limited. Ontario Agents: The Queen City Oil Co., Ltd.

MARKET REVIEW AND FORECAST

Toronto, Monday, July 25.—The latest reports from the west regarding the condition of the crops, fully bears out what was stated in our last issue, viz., that there is no reason for a pessimistic feeling as to the outcome of the harvest. The Imperial Bank correspondents state that whilst there is considerable uncertainty in some sections, others report an average yield, and the estimate of the total wheat crop is placed at between 70 and 80 million bushels. Northern Alberta is expecting a fine harvest in most classes of grain, as are large sections in the other provinces. Fall money in Toronto rates at 5% to 6 per cent.

WHEAT

Whilst the condition of the wheat crop in the west, is causing a certain amount of concern, there is nothing of the sort apparent in regard to the condition of the wheat crop in this country, generally conceded to be in as fine a condition as has been apparent for many years.

Exports place the western yield at not less than 29,000,000 bushels. In the Eastern Provinces also the crop is reported in first class condition. The market in Chicago trading is very strong, and at last advices September wheat closed at \$1.07; December at \$1.09; and July at \$1.09.

In all the continental centres, the markets were strong with an upward tendency. In the west wheat is selling at \$1.02 to \$1.03 a bushel.

COARSE GRAINS
There is a better feeling abroad in regard to the outcome of the oat crop, but prices are falling high.

POTATOES AND BEANS
There is not so much of the American product selling as was the case last week, and prices are higher. New potatoes are quoted at \$2.50 to \$2.50 a barrel in car lots, and old stock is selling fairly well at 30c to 40c a bag.

Beans remain unchanged in price, being quoted at \$2 to \$2.10 for primes and \$2.15 to \$2.25 for three pound pickers.

On the farmers' market, potatoes are selling at 45c to 60c a bag.
In Montreal potatoes are firm at 45c to 50c a bag in car lots and 70c in a jobbing way.

Beans, three pound pickers, in car lots, \$1.80 to \$1.85 a bushel.

WOOL

Prices remain unchanged. Dealers quoted washed fleeces at 15c to 20c a lb.; unwashed 12c to 14c, and refuse at 4c a lb.

HIDES

Hides are weaker: No. 1, inspected steer and cow hides, 95c; No. 2, 85c a lb.; bulls, 75c a lb.; calf skins, 12c to 15c a lb.; sheep skin, 10c to 12c, to follow, 8c to 9c a lb.
At country points dealers are paying as follows:
Calfskins, 12c to 15c; sheepskins, 10c to \$1.10; horsehides, \$2.75 to \$3; horsehair, 30c a lb.

In Montreal the hide market is also weaker, and the expectation is that the prices will go lower yet in the near future. No. 1 beef hides, are quoted at 11c; the country of Peterboro, 1c; 1c, calf skins, No. 2, 12c a lb.; lambskins, 25c each.

EGGS AND POULTRY

Quotations for eggs continue firm and steady, being 12c to 15c a dozen in case of the Toronto market. The strike continues a few days longer it is bound to have an appreciable effect on the market. On the farmers' market, chiefly new laid eggs are selling at 20c to 25c a dozen.

In Quebec province some of the larger dealers are engaged in organizing egg centers. Following the principle laid down by Farm and Dairy, a few weeks ago, and which is being so successfully carried out in the County of Peterboro, 1c; 1c, calf skins, No. 2, 12c a lb.; lambskins, 25c each.

The Montreal market is feeling the effect of the railway strike, and prices are stiffening. Sales of straight receipts during the past week have been around 17c and 17 1/2c a dozen, and of selects in round lots, 25c a dozen.

Second grade eggs are quoted mostly nominally at 12 1/2c to 13c a dozen. Dealers do not care to handle them to any extent.

Poultry prices in Toronto remain unchanged. Spring chickens, dressed, 20c to 25c a lb.; alive, 15c to 18c a lb.; live fowl, 12c to 15c a lb.; turkeys, dressed, 25c a lb.; year old turkeys, 12c to 15c a lb.

FRUIT AND VEGETABLES

Trade is very active, but would be more so if the economic conditions to which reference has been made, were different. Wholesale prices for the various fruits and vegetables are as follows: raspberries, 10c to 11c a box; Canadian cherries, \$1 to \$1.25 a basket; red currants, 75c to \$1 a basket; California peaches, \$1.25 to \$1.50 a box; water melons, each, 50c to 60c; pineapples, \$2.75 to \$3 a crate.

Vegetables—Green peas, 4c a basket; Canadian cabbage, crate, \$2; cucumbers, basket, 80c to \$1; beans, 20c to 25c a doz.; tomatoes, \$1.75 a crate; Canadian tomatoes, \$1 to \$1.50 a basket; carrots, 40c a dozen.

On the farmers' market vegetables are selling at the following prices: Cabbages, 5c to 10c each; onions, \$1.40 to \$1.50 a bushel; lettuce, 4c to 5c a bunch; beans, 25c to 30c a dozen; green peas, 40c per new carrots, 5c to 10c a bunch; cauliflowers, 15c to 20c each.

HAY AND STRAW

Reports of the hay crop, especially in the Eastern Provinces are distinctly encouraging. In the Maritime Provinces there is a record crop and as there was bad weather in England for harvesting the hay it is altogether probable that there will be a brisk demand for choice qualities on that market from this country.

In the local market most of the hay selling is new, and prices on track are: Old hay, \$17 to \$18; timothy, \$14 to \$15; hay, \$13 to \$14; clover, \$12 to \$13; mixed, \$11.50 to \$13 a ton; straw, \$6.50 to \$7.50 a ton.

On the farmers' market, new timothy is selling at \$21 to \$22 a ton; clover and clover mixed, \$13 to \$15; straw in bundles, \$15 to \$16; loose straw, \$8.50 to \$9.

In Montreal there is little change in the hay market. No. 1 timothy is quoted at \$18 a ton; new hay, No. 2, \$11 to \$11.50; clover and clover mixed, \$9.50 to \$10 a ton. Baled straw, \$5.50 to \$6 a ton on track.

MILL FEEDS

Prices for mill feeds are as follows: Manitoba bran, \$20 a ton; shorts, \$22 a ton on track, Toronto. Ontario bran, \$20 a ton, about \$22 on track, Toronto. Montreal prices are: Manitoba bran, \$20 a ton in bags; shorts, \$22 a ton in bags; Ontario bran, \$20 a ton in bags; shorts, \$22.50 a ton, in bags.

Prices are stiffening somewhat owing to the active demand from the States.

DAIRY PRODUCTS

There is no difference in the price of butter on the local market. Supplies are coming in fairly well, and although in some quarters there is considered to be a likelihood of a shortage of supplies, the present railway stringency the general feeling is that the difficulty will be smoothed over before serious inconvenience is experienced.

Wholesalers make the following quotations: Choice creamery prices, 25c to 24c a lb.; separator prints, 20c to 21c a lb.; dairy prints, 19c a lb.; ordinary quality, 16c to 17c a lb.

On the farmers' market choice dairy butter is selling at 20c to 22c a lb., and ordinary quality at 15c to 16c a lb.

In Montreal wholesalers are quoting best creamery at 20c to 21c, and 17c for twins. Old cheese, 12 1/2c a lb.

Montreal prices for cheese are: Westerns, 15c to 11 1/2c a lb.; easterns, 10c to 11c a lb.

HORSE MARKET

There is nothing much doing yet in the horse market, although dealers report sales of a few car loads to different points in Ontario and the West. Prices are high for good animals in all classes. Prices have ranged as follows:

Heavy draught horses, \$300 to \$320; choice agricultural and general purpose horses, \$170 to \$200; medium quality, \$135 to \$160; drivers, \$125 to \$225; expressers, \$150 to \$200; servicially sound horses, 140 to \$100.

LIVE STOCK

The live stock market is certainly feeling the effect of the strike, and buyers are not altogether jubilant over the immediate prospects. Choicest animals are able to command very high prices and in fact all grades at the close of the week found willing purchasers. Stockers and feeders from the north and west are selling fair prices, from \$5 to \$5.25 a cut. Many sheep and lambs were on sale and prices in regard to them were fairly easy. Hogs which have been sea-weighing in price for so many months, are up in price again, being quoted on the market as high as \$10 a cwt. fed and watered. But the price current throughout the week showed no higher average than \$9.50 to \$9.70, fed and watered. The market was sold, in some instances, as high as \$6.75. Dealers gave the following quotations:

Expert cullings—Choice, \$7.10; medium, \$6.25 to \$6.40; ordinary quality, \$5 to \$5.25. Butcher's cattle—Choice, \$5.50 to \$6.50; medium, \$5.25 to \$6.40; ordinary quality, \$3.50 to \$5.20. Butcher choice—Choice, \$5 to \$5.50; medium, \$4.25 to \$5.25; ordinary quality, \$3.50 to \$4. Heavy feeders—Choice, \$5.25 to \$5.60; ordinary quality, \$3.50 to \$5. Stockers—Choice, \$4.50 to \$5.25; ordinary quality, \$3.25 to \$4.50. Canners—\$2 to \$2.50.

Milch cows—Choice, \$50 to \$65; medium, \$30 to \$40; springing, \$40 to \$55. Calves—\$3 to \$7.

ABSORBINE

Cure Strained Fully Ankles, Lymphangitis, Puff Swellings, Itchiness, and Allergies. Pain Quickly without Distressing, removing swellings, itching, and all other annoyances. So use, 25.00 per bottle at dealers or direct from the manufacturer, W. F. YOUNG, P.O. Box 123 Temple St., Springfield, Mass. U.S.A.

Sheep—Ewes, \$3.75 to \$4.40; rams, \$3 to \$3.40; lambs, \$7.50 to \$8.50 a cut. Hogs—Farrow, \$9.50 to \$9.40; fed and watered, \$9.40 to \$9.70.

MONTEAL HOG MARKET

Montreal, Saturday, July 23d.—The strike on the Grand Trunk Railway interfered considerably with the market for live hogs, several cars being stalled on the way to Montreal, and a large number of shippers were unable to get their stock in to market at all. The scarcity of supplies caused a firm market and prices were advanced on the selected lots, as high as \$18.25 a cwt. being paid for this grade, although in some lots were picked up at around \$10 a cwt.

Dressed hogs were firm and the demand was about as equal to the supply, prices being advanced after the receipt of a few fresh killed abattoir stock selling as high as \$14 a cwt.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, July 23d.—Receipts of butter into Montreal this week were decidedly smaller than usual, the strike on the Grand Trunk Railway is largely responsible for the falling off. The total for the week amounted to 15,000 boxes, whereas we should have received about 100,000 boxes in the ordinary course of affairs.

The market for butter is firm this week owing to the small quantity coming from the country, and prices are steady. The demand is largely for home trade and for speculative purposes. There is nothing doing just now for export. The market for cheese is firm this week owing to the small quantity coming from the country, and prices are steady. The demand is largely for home trade and for speculative purposes. There is nothing doing just now for export.

CHEESE MARKETS

Stirling, July 19—735 boxes offered; 665 sold at 10 1/2c; balance refused 10 1/2c. Peterboro, July 20—3076 boxes of cheese offered; cheese sold rapidly; highest price, 10 1/2c.

Madoc, July 20—700 boxes of cheese board offered; 600 boxes sold; the balance of the strike factories may sell before next board if shipping arrangements can be made. Brantford, July 21—220 boxes of white and 1670 boxes of colored offered; 200 boxes of white and 225 boxes of colored sold at 11c.

Kingston, July 21—628 boxes of white and 600 boxes of colored cheese registered. Sales at 10 1/2c and 10 1/2c; nearly all the balance of the white sold. The price of Vankleek Hill, July 21—1712 boxes of cheese boarded; price offered 10 1/2c; all sold at 10 1/2c.

Winchester, July 21—225 boxes colored and 748 white were registered; 1076 offered for colored and 10 1/2c for white; half of the white sold.

Ottawa, July 22—1040 boxes of cheese boarded; 444 white and 596 colored; 782 sold at 10 1/2c for white and 10 1/2c for colored. Alexandria, July 22—966 boxes of cheese offered. All white. All sold at 10 1/2c.

Brantford, July 22—Offered, 885; bid, 10 1/2c. No sales. Troquois, July 22—598 colored and 150 white cheese offered. All sold at 10 1/2c. Brantford, July 22—1040 boxes of cheese offered. All white. All sold at 10 1/2c. Kenneville, July 22—12 factories boarded 306 boxes of white and 367 boxes of colored, selling at 10 1/2c.

BREEDER'S DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted unless two lines, nor for less than six months, or 26 insertions during twelve months.

ORMSBY GRANGE STOCK FARM, ORMSTOWN, P. QUEBEC.—Importation and breeding of high-class Chrysides, a specialty. Special Importations will be made.—DUNCAN McCLELLAN.

HIGHLAND HORSESHOERS.—For full particulars in regard to stock and prices, address R. W. WALKER, Utica, Ont.

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

ONE 2 YR. STALLION by Champion Right Forward, Imp. One 2 yr. filly by Barron Beau, Imp. Yearling stallions and fillies by that greatest of sires, Acme Imp., mostly all from imported mares. Three Imp. 2 year old fillies just received.—R. M. HOLBYR, Manchester P. O., and G. T. R. Station; Myrtle C. P. R. L. D. Phone.

CHERRY BARK STOCK FARM.—The home of High Class Record of Performance.—R. O. P. Cows and Heifers. The average test of the herd is 4.12.—P. D. McARTHUR, North Georgetown, Que.

Various small advertisements and notices on the right margin, including 'Corwin sold at 10 1/2c', 'THE system I building and the the ches', 'A POPU trival th', 'Burg F', 'RENEW', 'SEGU', 'SWA', 'Beey, K', 'MAKI', 'Out', 'This vo on fine and is la', 'drawing flent h', 'drawn p', 'feature being', 'logical appears', 'and app', 'the gre', 'Teacher, or gene', 'The wo', '9 inches making', 'be up unless he', 'Price, pre', 'BOC', 'THE RU', 'PETERB'

Cornwall, July 23-111 white offered. All sold at 10¢. and 587 colored, all sold at 10-15¢.
London, Ont., July 23-1229 boxes offered. 195 boxes colored, sold at 10¢.
Watertown, N. Y., July 23-Cheese sales, \$500 at 12½¢.
St. Hyacinthe, Que., July 23-700 boxes of cheese sold at 10¢ to 10½¢.
Cowanville, Que., July 23-153 boxes of cheese offered. 84 boxes of cheese sold at 10½¢; 56 boxes at 10¢ and 29 boxes at 10½¢.
Canton, N. Y., July 24-2000 boxes of cheese sold at 10¢.

GOSSIP

THE WESTERN FAIR-A cold storage system has been installed at the dairy building at the Western Fair, London, Ont., and the cheese at the exhibition this year, September 9th-17th, may be seen through a double plate glass front thereby giving the cheese exhibit a very much better appearance. The butter exhibit is provided for in the same way. Silver cups have been offered in addition to the cash prizes for each section of the cheese. The butter making competition will also be of particular interest this year as liberal cash prizes are offered, and a silver cup is given to the Canadian dairy cow to the winner of section two. Prize lists, entry forms, and all information, will be given on application to the secretary, A. M. Hunt, London, Ont.

A POPULAR HORSE REMEDY-A very trivial thing oftentimes causes a horse to lame, such as a slight sprain, a strain or a cut. The lameness may be inconvenient, but it is not otherwise serious. All that is necessary in many cases is to be ready to treat promptly with some efficient remedy. For over a score of years one could hardly speak or think of a horse remedy without alluding to Kendall's Spavin Cure. Almost everybody who owns a horse has heard of Kendall's Spavin Cure. Its popularity is so general even world wide. It is on sale at drug stores and general stores everywhere. The excellent horse book entitled "A Treatise on the Horse and His Diseases," can also be had free at drug stores or by writing for it to the Dr. B. J. Kendall Co., at Enosburg Falls, Vt.

Renew your subscription now.

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It will help you

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Out of the Hog Business

This volume is handsomely printed on fine paper from large, clear type, and is profusely illustrated, containing a large number of magnificent half-tone illustrations and drawings, many of them full page plates, which are printed on a special plate paper. Another marked feature is the frontispiece, this being an anatomical and physiological model of the hog, which appears in a book of this character for the first time. It is entirely new, and original, and should prove of the greatest value to everyone—teacher, student, stockman, farmer, or general reader.

The work contains 704 pages (6 by 9 inches) bound in fine silk cloth, making a very handsome and attractive book. It is one that will be up to date in swine matters unless he possesses a copy.

Price, prepaid to your address, \$2.50

BOOK DEPARTMENT

THE RURAL PUBLISHING CO.,

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PETERBORO, ONT.

AYRSHIRE NEWS

Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association, all of whose members should be in possession of a copy. Members of the Association are invited to send items of interest to Ayrshire here for publication in this column

AYRSHIRES PRAISED

From the report of W. F. Stevens, Secretary of the Ayrshire Breeders' Association.

The following clippings from two leading United States Live Stock Journals describe the exhibit of Ayrshires at the Seattle Exposition perfectly. The "Breeder's Gazette" of Chicago, says: "Among the breeds specialized for milk-making, the Ayrshire readily played a prominent part in this event. America has never seen the like of this display. Two continents and three countries contribute to it. Many of the winners were imported, some of the most prominent varieties of the breed being represented in the selection. The entry came from coast to coast from Quebec to Pennsylvania, touching in Ontario and Washington. Assuredly this spectacle challenges in its brilliancy any display of a dairy breed on this continent. Most closely of all breeds did the Ayrshires adhere to type. There was scarcely a suggestion of inferior form. While largely predominant, the upturned horn, strained from fancy, was not entirely lacking. The entry was largely a natural uprightness. The high carriage of the bulls and the absolute perfection of the cows, with sufficient depth of body, all stand prominently forth as factors that contribute to what is called Ayrshire type, a pattern readily discernible even to the untutored eye.

"The type was admirably illustrated in the aged cow class. This was for cows five years old or over, and was for the class. It was filled by eleven of the most sensational dairy matrons that ever entered an arena. And they had its counterpart here in Heathcote 1st of Barboursville.

No higher compliment can be paid "this grand cow, rich in the graces of the breed, and yet full of assurance of working values."

The "Rural Spring," published in Oregon, says of this exhibit: "The Ayrshire cow is the pride of Scotland from a dairy standpoint. Such exhibitions of the breed as that made at Seattle Exposition go a long way toward making her the pride of any country. She was out in imposing numbers and superb quality. The great uniformity of type, the same flesh in color and the well balanced, uniform udders, were the remark of the crowd. The quality of the exhibit was such as is rarely assembled in any country. It was the cream of the breed from coast to coast, including Canada, her American stronghold. It was a show worth thousands of dollars to the breed, and will result in popularizing it in the Northwest to an extent that could not have been accomplished in years in any other way."

SUNNYSIDE STOCK FARM.

Our representative visited this fine farm, and was highly pleased with the Ayrshires of W. Logan, Howick, Ont. This herd has five years but all good and in the Record of the work. The

AY AUGUSTS

BURNING AIRES
Fresh imported and bred of 12 of the choicest ever raised in this land, such as O'Brien's, B. H. Vethel, Bargenoch, B. H. Vethel, also in female cows, 12 and 13 and 30 choice 1 year olds, and 12 solid. \$4-10
Burnside Stock, Que.

BULL

Up to ten months of age, 1st of Performance Stock. Price reasonable. JAS. BEGG, Rm. 10, Ont.

SUNNYSIDE

Imported and best of the choicest breeding stock has been selected for young bull drops. "Nether Hall Good" as well as a few for sale. Write or call on J. W. LOGAN, Howick, Que. ('Phone in Howick, Ont. 14-11)

STONEHOLD STOCK FARM

Is the home of most of the coveted horns at the leading eastern Exhibitions, including first prize old and young herd. FUR SALE a few Choice Young Cows, also Bull Calves.

HECTOR GORDON, 0-9-10 HOWICK, QUE.

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CLYDESDALES, AYRSHIRES, YORKSHIRES. Special offering: Two bulls, 10 months old of good dairy type; also colts and brood mares, high grade pure bred. Write for information, prices.

W. F. KAY, Proprietor

SPRINGHILL AYRSHIRES

Imported and home bred stock of all ages for sale. Stock shown with great success at the sales fairs. ROBT. HUNTER & SONS, Long Distance Phone. Naville, Ont. E-17-11

AYRSHIRES OF ALL AGES

Imported and homebred. Write for prices, which you are sure to find attractive.

LAKESIDE FARM, PHILIPSBURG, QUE.

GEO. H. MONTGOMERY, Prop. 184 St. James St., Montreal

"La Bois de la Roche's" Stock Farm

Here are kept the choicest strains of AYRSHIRES, including home bred YORKSHIRES of the best quality. WHITE ORPINGTON, WHITE WYANDOTTES and RALPH ROCK BIRDS. HON. L. J. FORBET, J. A. BIBEAU, Proprietor, Manager

E-67-11 Ste. Anne de Bellevue, Que.

herd numbers 46 animals, with the noted "Nether Hall Good Time" as herd leader. This bull has made a grand record, won at Toronto, Sherbrooke, Ottawa, Winnipeg, Regina, Calgary, and at smaller shows. He is an animal of substance and quality, and by the appearance of his horns is proving a grand dairy sire. A number of the lactating heifers are checked King's Own, the unbeaten champion. Among the females are the splendid dairy forms of Miss Donovan, Ryley's Gate, and the superb sire of one of Glenashbrook breeders, besides a dozen or so others. Strong frames, good type and form, but especially the udders and teats, are characteristics of the fall of 1909, since they are more shipping Ayreshires than any more or less distant. We saw two young bulls of the fall of 1909, since they are more valuable as herd leaders in a few months.

HOLSTEINS

BULLS! BULLS!

At less than half their value for the next 30 days. Write: **GORDON H. MANHARD**, Manhard, Ont., Leeds Co. 3-11-10

FOR SALE-Cornelia's Poach, five times first prize bull Toronto, 1908, sire of 1st prize; also five of his sons, all from record of merit cows. Also females of all ages. **THOS. HARTLEY Downsview, Ont.**

Do you want a first class Cow or Heifer bred to a first class bull? Francis Sir's Admiral Ormsby heads our herd. Dam, Francis Sir, Canadian Champion Butter Cow. Sire, Sir Admiral Ormsby, sire of the world's champion 2 year old heifer.

J. A. CASKEY, Box 144, Madoc, Ont.

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For sale, one yearling bull, fit for service; also bull calves, from Record of Performance cows.

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HOMESTEAD HOLSTEIN HERD

Headed by the great young sire, Dutch land Colanah Sir Abbeke. Dam, Tidy Sir Pinebar. Col. butter 7 days, 22.44. Sire's dam, Colanah 4th Johanna, butter 7 days, 35.22. Average of dam and sire's dam, 31.83 lbs. Bull calves offered, one to seven months old, from dams up to 25½; lbs. butter in 7 days.

EDMUND LAIDLAW & SONS 17-2-11 Box 254 Aylmer West, Ont.

RIVERVIEW HERD

Offers bull calves at half their value for the next 30 days. One ready for service, one sired by a son of King of the Pontiac, dam daughter of King Siga. Record, 18.37 lbs. butter, 7 days, 21.82. 2nd year old.

F. J. LACHNE Rapids, Que.

LYNDALE HOLSTEINS

We are now offering for sale a 15 mos. old son of "Count D. Kol Prentiss Paul" out of a 2d dam, also a son of Sarsaparilla Kernsford, from an 18 lb. cow. Both champions of their services.

TR. BROWN BROS., LYON, ONT.

LAKEVIEW HOLSTEINS

Count Henservid Payne De Kol heads the herd. His sire, Pieterloo Hengerveld Count De Kol, is the sire of the world's champion milk cow, De Kol Dreamlike, 19 lbs. milk in one day, and 10.17 lbs. in 100 days. His dam, Pieterloo's cow, was 55.30 lbs. butter in 7 days, and is the dam of Grace Payne 2nd's Homestead, the world's champion butter cow, over 50 lbs. butter in 7 days. Bull calves for sale.

E. F. OSLER, Bronte, Ont.

FOR SALE-My stock bull, Duplente Poach, No. 4768, bred by Logan Bros. Am herder, N.S. is kind, sure and gentle. Dropped May 2nd, 1909, at 100 lbs. His daughters in milk yet but she gave around 50 lbs. per day. We have several coming on which we expect to see in Record of Merit. Price, \$150, or would trade for females.

J. J. TANNHILL, White's, Que.

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150 acres of land for the settlers in Northern Ontario. Situated south of the G. T. P. Transcontinental Railway, South of Winnipeg, and 80 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

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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 are recommended by the Dominion Government) in addition to household Scales, which we are willing to sell to every reader of this paper at a saving of 50 cents on the dollar.

With those Milk Scales you can tell exactly what profits you are getting from each cow, or if you are keeping any sow 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.

10 lb. Spring Balance Milk Scale, marked in decimals, and always sold at \$7.00	30 lb. Circular Spring Balance Milk Scale, marked in decimals, and always sold at \$5.00
Our Special Price \$4.50	Our Special Price \$3.50

50 lb. Straight Balance, marked in one pounds, and always sold at \$11.00	40 lb. Straight Balance, marked in half pounds. Sold regularly at \$12.50
Our Special Price 38c	Our Special Price 75c

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

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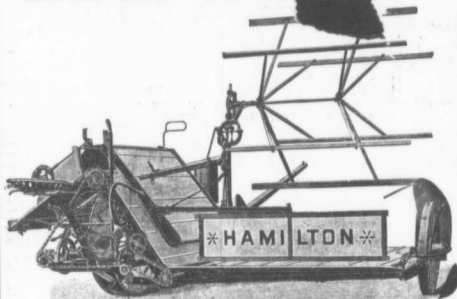
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RIGHT HAND CUT with levers conveniently located to be quickly and accurately operated.

THE MAIN FRAME will neither break, twist out of shape, nor rattle loose.

THE TABLE is made from one piece of cold rolled heavy steel, cannot sag or buckle.

THE CUTTER BAR is "Z" shaped, strong and stiff, and protects front of table.

THE REEL—strong and well built—has the assistance of a counter balance spring to keep it in balance and facilitate operation. It is controlled by one lever convenient to the driver's hand. It will not sag.

THE KNOTTER is unfailing.

Be sure to Write for Descriptive Catalogue or See the Peter Hamilton Agent before Buying.

The Peter Hamilton Co., Ltd., Peterborough, Ont.

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Cool Days and Cool Nights

If Spent in One of Farm and Dairy's

PREMIUM HAMMOCKS



This closely woven Hammock, with pillow, head spreader and valance on sides, comes in a fine assortment of colors, which are mostly the popular red combinations. Size of body, 33 x 74 inches.

Given away in return for only **FOUR** New Yearly Subscriptions to Farm and Dairy, at \$1 each. Send in new Subscribers at once and enjoy the Hammock during the summer. The children could help earn it.

Samples sent on application to:

Circulation Manager

FARM AND DAIRY
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