

Issued Each Week—Only One Dollar a Year

VOL. XXVIII

THE GUA MEAT

NUMBER 27

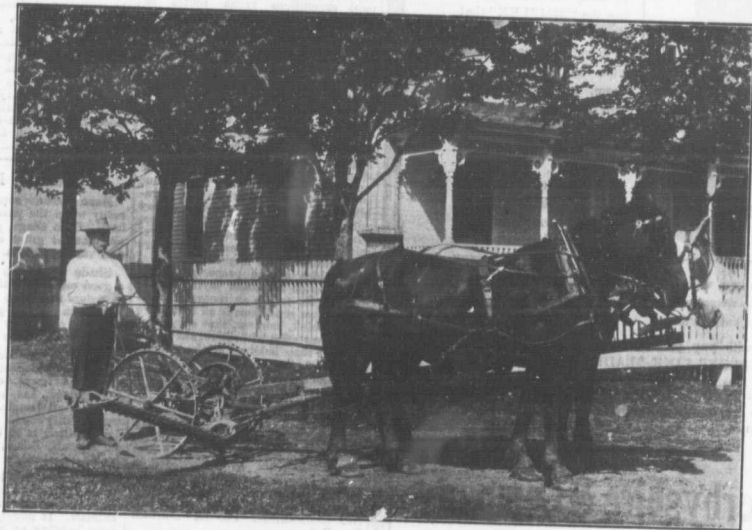
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JULY 8.

1909



A NOVA SCOTIA FARMER STARTING FOR THE HAY FIELD

At the head of the Cobequid Bay, near Truro, are located some of the best farms in the province. Broad expanses of marshland and fertile uplands produce heavy yields of hay, which is one of the chief products of these farms. At haying-time, hundreds of mowing machines, rakes and waggons may be seen at work at one time on the historical marshlands. The illustration shows Mr. Davidson Hill, of Central Onslow, and one of his mowing outfits, ready for the harvest.

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BETTER FARMING AND
CANADIAN COUNTRY LIFE

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Warden Powers on Good Roads Suggestion

Editor Farm and Dairy.—To the statements of Mr. B. Rothwell re the best manner to provide for the construction of good roads you append the query "What do our rearers think of the suggestion?" The writer thinks it is certainly an improvement on our system, inasmuch as the state contributes nearly 17 per cent. more than the government of this Province. In our opinion the Legislature would be heartily endorsed by disclosing similar liberality. Over there it appears that the county contributes 53 per cent., whereas under conditions obtaining here the county pays two-thirds or nearly 67 per cent. Why not, Mr. Editor, eliminate the county altogether?

One of the greatest objections to the initiation of the good roads movement has been the vastness of the outlay and in counties such as Northumberland and Durham with 15 rural municipalities it is not hard to find a solution for our apathy. The days of the long wagon haul are gone forever in old Ontario and the "county system" of roads are not needed to the same extent; as formerly. The most expeditious trunk routes to market towns have become defined by use and these are the roads which should be improved for the benefit of the farmer and his family.

After giving the matter some consideration these are briefly our views. The provincial government should contribute one-half and extend the privilege to the townships. Let it be paid in instalments so as not to become a burden to the ratepayers to raise their share. The standard of the roadway should not be unreasonable with regard to cost, but such as to insure neatness and durability and give a businesslike way with a complete absence of red tape. The work in some counties would remind one more of fuss and feathers than real business methods.

The idea of the property holders living beside the roads paying 10 per cent. of the cost is an innovation and under some conditions is all right. We do not think, however, that all parties should pay alike without regard to the value of their holdings or the enhancing effect the highway would have upon the value of their property. This difficulty could no doubt be overcome by the appointment of three practical men to decide upon the relative amount each owner should pay all things being considered. A farm turage would not be appreciated in value to the same extent as one with modern improvements where a general system of farming operations is carried out.—A. A. Powers, Durham Co., Ont.

A Friend of Scrub Sires

Editor Farm and Dairy.—I notice that you advise farmers to always use pure bred bulls upon their grade cows. I do not agree with that advice. I have been in the dairy business for over 20 years, following on with the same stock that my father left. We had succeeded in breeding up a pretty good herd of dairy cattle, mostly Ayrshire. We always used the best Ayrshire bulls we could get in this section, but they were not pure bred. We always looked for a bull with plenty of heart room and a good bread basket. The heifer calves from these bulls were mostly low down heavy bodied animals which made cows with good udders, that did good service at the pail.

Some years ago I decided to get a pure bred bull and sent for one to a breeder in Quebec that had young bulls advertised for sale. He was the progeny of a noted bull and a cow with a long pedigree. In due time the young bull arrived, a nice, slick, fat

animal with a long pedigree tracing back to noted ancestors. We naturally felt proud of the animal. We bred him to our cows and had a good crop of heifer calves.

The results have been disappointing. The calves have grown up like their father. Tall, slim, animals with small middles that have not given the results at the pail at their mothers did. We have gone back to our old way of breeding in getting the right kind of an animal whether he has a pedigree or not.—R. Ritchie, Frontenac Co., Ont.

Live Stock in Canada

Canada is declared by the Scottish Commissioners that visited the country last fall, to be pre-eminently suited for the breeding of good draught horses. Conditions are also favorable for the production of good mutton and wool, though the sheep industry has been falling back, partly owing to the almost incredible way in which the "pestiferous fly" is allowed to flourish. There is a large room, too, for improvement in the common flocks; though the Ontario pure-bred specialists are looked to—after Great Britain by all North America for the supply of pure-bred rams. In contrast to the reduction of sheep, pigs have enormously increased, their quality throughout Canada is high, and hog culture is profitable.

For poultry keeping the Commissioners say, Canada possesses unique opportunities. The idea that warm housing is necessary for winter egg production is contradicted by experience. In the North-west turkeys seem to thrive so well that it might be profitable to specialize in them.

Items of Interest

Have some supplementary feed ready when the pastures begin to get bare. Corn silage, green alfalfa peas and oats or green corn will tide you over short pastures.

Shade trees in a pasture field are a good comfort in the country. A clump of cedars that have the branches coming down to the ground will brush the flies off. Very few flies will be found on the cattle in such a shade.

Mr. R. E. Mortimer, who has been district representative of the Ontario Department of Agriculture at Collingwood, has resigned to return to practical farming at his old home near Honeywood, Dufferin County. His position is to be filled by Mr. I. F. Metcalf, B.S.A., who was formerly Mr. Mortimer's assistant.

Use something to destroy the flies upon the cows. It is not enough to dab some very vile mixture on the animals. It merely prevents the flies from lighting on them. They attack some other animal that has not been treated. A spray of some kind applied when the flies are upon the cow will kill the flies by closing up the spiracles on the sides of their bodies, through which they breathe. Consequently they die by suffocation.

The Board of Directors of the National Dairy Show Association met in Chicago recently. There were present Mr. Colin C. Lillie, president; Prof. H. V. Norman, vice-president; and Directors J. A. Walker, W. B. Barney and D. H. Jenkins. The resignation of Director E. Sudenort as secretary of the Association was accepted, and Prof. VanNorman was elected to the position of secretary and manager. It was definitely decided to hold the 1909 exhibition at Milwaukee, Wis., December 15th to 24th inclusive. Headquarters will be opened at once in that city and the campaign for this year's event will begin in earnest about the 15th of July.

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A Fair Idea

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a Year

Vol. XXVIII.

FOR WEEK ENDING JULY 8, 1909.

No. 27.

POULTRY KEEPING ON A ONE HUNDRED ACRE FARM

L. R. Martin, Lincoln Co., Ont.

A Fair Idea of the Management of a Farmer's Flock. Personal Experience Obtained Under Circumstances Similar to Average Farm Conditions.

NEARLY every farm has as a side line, a flock of poultry. The special advantages which are afforded in connection with general farming, make the farmer's flock, under reasonable care, a source of large income for the amount that is invested. Greater profits can be realized from poultry in this way, than when managed on a large scale independently, as the cost of the production of poultry is very much reduced by the use of skim milk and other good poultry foods, which occur as by-products of the farm. The grains grown on the farm for all classes of stock are convenient for the poultry. The straw and the litter required for scratching material are also present while the manure can be used to good advantage.

COLONY HOUSE SYSTEM.

By the use of the colony-house system, the birds can be moved to the corn or stubble fields where they get a large amount of waste grain, worms and insects that otherwise would not be found. These insects constitute a large amount of food for the poultry and if not destroyed would be destructive to field crops. These are a few of the reasons which go to show the important part that the farmer's flock plays in producing an income on the farm. The value of the poultry industry in our country does not depend upon the large poultry keeper, but rather upon the farmer's flock. This is where the industry should be encouraged.

Having been given the management of the poultry branch of the farm at home, 10 pure bred Barred Plymouth Rock pullets and one male were purchased as a start. With experience, the number in the flock was increased from year to year, until it reached 150. This makes a profitable number for the average farm. The quality of the flock is maintained as nearly as possible by purchasing each year desirable male birds and also by weeding out any which are undesirable as those too fat, lazy and sickly. Trap nesting is not followed as the practice requires too close attention for a farmer. Although trap-nests are indispensable where accurate egg records are desired, a very correct idea of the laying ability of each hen can be obtained by ordinary observation.

OLD BUILDING UTILIZED.

The building accommodation consists of two old houses, each 16x10 feet, made of single boards with battens over the cracks. They have windows in the south side and a door at each end. The houses, although quite cold in winter, are dry and free from draughts. One third of the floor is made of boards, raised one foot high, on which to stand the water buckets and feed hoppers. The remaining two-thirds is ground floor over which is placed six or eight inches of oat wheat straw as a scratching material. This is frequent-

ly replaced by fresh straw. Nest boxes are fastened along the north side, three feet above the floor. They are cleaned every second day by scraping the droppings in a basket or pail with a hoe and then a small amount of road dust thrown over the boards to act as an absorbent. The nesting material also is frequently replaced by a new supply. With these sanitary measures, little or no trouble is found with lice or diseases. If a few lice do happen to appear, a little coal oil is poured over the roosting frames and cracks of the dropping boards, thus keeping the vermin in check.

FRESH AIR IN HOUSES.

The houses are supplied with plenty of fresh air. In the summer, the houses are kept cool by

One Issue Worth Several Dollars

Through the kindness of a friend I have been receiving Farm and Dairy for the past year, and after reading the paper for a year I heartily assert there is no gift my friend could have made me that I would have taken more pleasure out of than Farm and Dairy. I have often read articles in one issue that were worth the whole year's subscription price many times over to any farmer.—H. J. Carter, Prince Edward Co., Ont.

opening both doors, thus giving a free circulation of air, while in the winter only one opening is allowed, thus avoiding draughts but supplying fresh air. During the winter, each house contained 30 hens, but during the summer, more roosting accommodation is furnished and 75 hens are put in each house. In the fall when the cold weather commences, thus confining the hens to indoor life, the extra number is moved into other quarters in the barn until spring.

A yard five rods square is situated at the south side of these buildings, which are placed side by side. The ground is kept clean and sanitary by frequent cultivation. Plum trees are placed to supply shade, but while they are yet small, shade is furnished by a large board cover placed about two feet above the ground on stakes. In the hot summer days the hens are found crowded under this cover, preferring it to any other place. A row of sun flowers is planted around the outside of the fence, furnishing shade as well as ornament. This yard furnishes a good run for the flock at times when the outside crops necessitate the confinement of the poultry. The idea that to obtain eggs, the hens must have free range, is a wrong one. With a little more care and food, they will lay as many eggs when confined in a reasonable sized yard as when running at free range.

The method of feeding is very much the same the year around, the only difference being that skimmed milk which is fed during the summer is replaced by lean meat during the winter. As skim milk when fed in the winter, has a loosening effect on the birds, a more concentrated food gives better results. Lean meat cannot well be used in warm weather as it moulds very quickly and is then unfit for use. The supply of lean meat in winter is obtained by purchasing horses which have outlived their usefulness and dressing them in a manner similar to a beef. This flesh is kept in a cool place and cooked as required. When commencing to feed the meat, care is taken to introduce it gradually. When accustomed to it, the hens are fed each day all that they will eat without leaving any. This amounts to about one ounce to a hen per day.

Wheat is the only grain fed in an unground condition. In the winter this is buried in the litter to induce the hens to take exercise while in the summer it is thrown over the ground in the yard. Hoppers containing a dry mash of equal parts by measure of bran, shorts and corn meal are kept before them at all times. Water, crushed oyster shell and green food are also kept before them. A fresh supply of water is given each morning. The green food in the winter consists of mangels. These are broken in halves and stuck on long spikes which are in the wall at a convenient height for the hens. The green food in the early part of the summer consists of finely cut clover and later on rape. Of course if they have free range they are able to obtain their own green feed.

HATCHING THE CHICKS.

The hatching is commenced in the first part of April, and carried on for three hatching periods or about ten weeks. After that time, the broody hens are at once put in coops and prevented from setting. The hatching is done both with hens and with an incubator. The chickens are raised altogether with hens. Out door brooders were tried but they proved unsatisfactory. At the time that the incubator is started, any available broody hens are also given eggs. The eggs to be used for hatching are kept at a temperature ranging from 40 to 60 degrees to prevent chilling or the commencement of hatching. Only those of uniform size and shape are used. To obtain good fertile eggs, the hens are mated two or three weeks before the eggs are required to be kept for hatching purposes, one male bird being allowed for every 15 females.

BROODING WITH HENS.

Any hens which become broody during the period that the incubator is in operation are allowed to remain so until the chicks hatch out when these hens are used for mothers. Some precautions are exercised in persuading the broody hens to adopt the new brood. When dark, on the first evening that the chickens are all hatched out, one or two little chicks are put under each broody hen. In the morning the hens have adopted these chickens, 15 or 20 may be added. Very few hens that have been broody for a few days will refuse to care for

the chicks given to them. In the afternoon of the same day, they are moved into the outdoor coops. The chicks are then given their first food consisting of bread crumbs, moistened with skim milk. After a few days this diet is gradually replaced by cracked wheat. When they have become accustomed to the wheat, it is kept before them at all times in hoppers. Milk and water are also kept supplied. For convenience and protection the chicks are kept near the farm buildings for the first two or three weeks, after which they are moved out to the corn field on a high and well drained location. They are most easily moved after dark. The coops or pens are made so that weasels, cats, skunks or any other enemies can be kept out during the night. These corn field conditions are almost ideal for the cheap production of healthy, vigorous chickens. They have plenty of shade and sunshine and in running about over the cultivated soil, they get a large amount of worms and insects as well as exercise.

FATTENING THE BIRDS.

The male birds are disposed of as soon as they have reached a marketable size. Those sold early as broilers are taken from the field and killed, while those that are kept to the roasting size, are crate-fattened. They are put in slatted crates, four or five in a crate 30 inches square, and fed on a mixture of equal parts by measure of cornmeal, finely ground oats and shorts to about the consistency of pan-cake batter, with sour skim milk. Care is taken that they are never over-fed, especially at the commencement. After three weeks of this treatment they are in good condition and as well as being heavier, will bring a few cents a pound more.

Little as yet has been done with caponizing but good success has been met with as far as tried. Twenty late birds were caponized one fall and allowed to run in an open shed during the winter, receiving only small quantities of food. They were crate fattened for the Easter market and sold for 25 cents a pound. Their average weight was seven and one half pounds each, the largest one weighing ten and one half pounds. Thus, chickens that would not have sold for more than 15 cents each in the fall were, by being caponized, sold for nearly \$2.00 each at Easter. The pullets are left in the corn fields until about the last of October when they are put in their winter quarters.

MARKETING THE PRODUCT.

Our produce is for the greater part sold in a retail way as the quantities have not been large enough for wholesale shipments. A few small shipments were sent to Montreal to compare with the home retail market and proved very satisfactory, realizing about the same in each case. The hens, which are kept until two years old, are more difficult to dispose of, but are sold during the early part of the summer, a fair price then being obtained for them. The eggs are all sold retail at a local market. As strictly fresh, the prices in winter range from 25 to 40 cents a dozen.

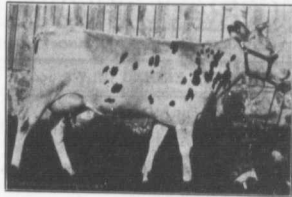
The profits realized are quite satisfactory. The market prices obtained for the males have, in most cases, been equal to the cost of the production of both males and females. Our best egg record from December until June led \$1.00 a hen clear, above the cost of feed, which was exceptionally low owing to the large amount of lean meat that was obtained for food at a very low cost.

It is clearly indicated that the farmer's flock, if given a fair chance, plays no small part in producing a profitable income on the farm. That many farm flocks produce little or no income, is not the fault of the business but rather of its management. With the poultry business, like any other business, good management brings success. Give the hen a fair chance and she will do the rest.

Minor Operations on the Farm

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

Many of the minor operations incident to farm life such as castrating calves and pigs, docking lambs and dehorning cattle are performed by the farmer and he is perfectly justified in doing so. There are, however, certain precautions that he should never neglect. As a rule, no great skill is necessary in performing these operations. The



A Holstein Heifer That Will Qualify

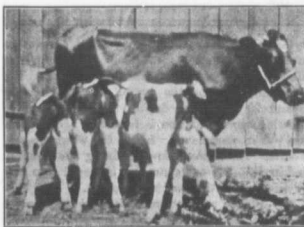
"Lucie Artis Johanna" has milked 7529 lbs. in 5 mos. 13 days as a 20-year-old, several times milking up to 85 lbs. a day 5 mos. after calving. Her dam has an A. S. D. rearing record of 29 lbs. milk, 10.23 lbs. butter, in 7 days, and her dam milked 13,000 lbs. in a year. This heifer is but one of the several promising ones in the "Hillcrest" herd owned by Mr. G. A. Brethun, Peterboro Co., Ont. Mr. Brethun is one of the competitors in the Dairy Farms Competition.

—Photo by our Special Representative.

one great requisite is cleanliness. In the matter of the castration of calves the operation is sometimes neglected till the animal is two or three months old, and the result invariably is that there is a "staggy" appearance about the head which is very objectionable from the butcher's standpoint and which materially reduces the value of a bullock in our best markets. Calves should always be unsexed during the first two or three weeks of their lives. They will stand the operations better than when older and there will be no danger of that undesirable masculine expression when they arise at adult life. Young pigs should be operated on while nursing the dam, when, if the operation is properly performed, they will receive no back-set whatever, while if allowed to go till a month or two they often experience a serious check in their growth.

THE CAUSE OF TROUBLE.

In operating great care should be taken to see that the hands of the operator and the instru-



Raising Calves in a Cheese Section

Some idea of the milking capacity of the grade Holstein herd owned by Mr. J. K. Moore, Peterboro Co., Ont., may be gained from this illustration. This cow, although she has lost the use of one-quarter of her udder, and has been milking since a year ago April, is successfully raising the four thrifty calves that were with her when she was photographed recently by an editorial representative of Farm and Dairy. Mr. Moore has as fine a herd of Holstein grade milking cows as one could wish for. This herd should make Mr. Moore a strong competitor in the Dairy Farms Competition, for which he has entered.

ment which he uses are thoroughly cleansed. Castration in itself is a simple matter if properly performed. In cases where unfavorable complications follow it is usually due to the fact that the necessary precautions as to cleanliness have been neglected. It has happened repeatedly that a farmer with a local reputation as an operator who

could truthfully boast that he had never lost a case as a result of castration has been mortified to find that after operating on a litter of pigs for a neighbor, that they did not do well; they became stiff and sore; the parts turned blue; they went off their food and probably several of them died. The man who operated is much surprised. He cannot explain the situation. He thinks, probably that the moon was not in the right stage or some other natural phenomena were to blame. If a person was to tell him that his hands or knife had been dirty at the time he would probably be offended and yet the chances would be as 20 to one that was the direct and only cause of the trouble. The operator should always wash his hands clean (see that there is not a rim of black dirt under each finger nail) then apply a weak solution of carbolic acid or other disinfectant. The knife should be treated in the same manner in order to insure the absence of any form of germ life. A very simple and effectual way of preparing an instrument for operating is to dip it in boiling water for a few minutes, when you may be perfectly sure that it is free from any germ life. After the operation the young creatures should be kept, as far as possible, in clean surroundings. If allowed in filthy stables or pens, germs are very liable to get entrance to the wounds and set up more or less trouble.

PREVENTING UNTOWARD RESULTS.

Absolute cleanliness during and after the operation is the greatest safeguard against untoward complications. If this precaution were adopted very little trouble would result from this simple and necessary operation. If some farmers had the chance of seeing some important operations in some of our hospitals it would be an object lesson to them to notice the most extreme care taken to insure absolute cleanliness. Even in veterinary practice, where such extreme precautions are not practicable, the greatest possible care is taken. A careful veterinary surgeon will not operate on a patient in a barn yard if he can possibly avoid it. He likes to have his patient out in some clean pasture field remote from a farm yard. There is hardly a more favorable condition for the propagation of germ life to be found than the ordinary barnyard and yet many of the minor operations are performed in such surroundings. Some of the worst cases of tetanus (lock jaw), which occur in farm stock, has resulted from what was very simple wounds exposed to barn yard conditions, wounds that in themselves probably would never have been noticed had they not been exposed to the action of germ life by unsanitary surroundings.

Feeding Hay to Horses

A majority of horse owners are inclined to waste hay in feeding horses—that is, they feed more than is necessary for the maintenance of the horse, and more than he can economically take care of. The Kansas Experiment Station offers the following good advice relating to hay feeding:

Either heavy or light horses that are doing regular, steady work should not, if one wishes to feed economically, have more than one pound of hay per hundred pounds of live weight. That is, a 1000 pound horse should receive 10 pounds of hay a day, and a 1500 pound horse 15 pounds a day. A 1500 pound horse that is doing steady work should have about four pounds of hay with his morning feed, the same amount at noon, and about double the amount at night. Many horses will eat 30 to 40 pounds of hay a day if they have free access to it. If a horse is allowed to eat such quantities, half of it is wasted, and if he is eating that amount of hay, it is worse than wasted for it does the horse an injury.

From two to two and one-half pounds of digestible protein is all that an ordinary horse can utilize in a day and in 100 pounds of alfalfa there are

11 pounds of protein. It is better to feed a horse a diet of alfalfa and other roughage than to feed him a diet of alfalfa and other roughage and a large amount of protein.

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11 pounds of digestible protein. This fare of alfalfa if too heavily fed is likely to cause kidney disorder and may even be responsible for abortion in pregnant mares that are fed too liberal a ration of it. If it does not cause abortion, weak, unhealthy foals will be the result.

Wants an Easier Method

In Farm and Dairy, June 24th, I was struck by an article headed "The Pest! the Sow Thistle," by Mr. Hy. Glendinning, of Ontario Co. His description of the overrunning of the farms by this weed will apply to this section exactly. His plan of eradication looks well upon paper, but how are we to apply it? A short rotation of three or four years may apply to a farm that is in fairly clean condition, but how can it be applied to a farm that is overrun with sow thistles. By the time half of the farm has been brought under the rotation, that which was cleaned first would be reseeded and as bad as ever. Mr. Glendinning says, "On farms that are practically overrun with sow thistle so as to smother out all grain crops it is a good plan to turn these fields to pasture." That would mean to many of us to have our whole farms in grass. I would like to ask him where the ordinary farmer would get stock to pasture his whole farm? Few of us have bank accounts that will enable us to go to Toronto and buy steers in the spring to put on our farms to fatten during the summer, and it would be slow work for us to raise stock enough ourselves to eat all of the thistles in the summer. If we were to go into stock raising where would we get feed to carry our stock over the winter?

Pasturing may kill sow thistles in Ontario County. I have my doubts about it killing the voracious plants that we grow in Wellington. Mr. Editor, if you could give us some easier plan than a three or four years rotation and pasturing, where so much expense would come in, and at the same time be sure death to the thistles, you would confer a great boon to many farmers like myself that have plenty of thistles but a very small bank account.—"Cynacus," Wellington Co., Ont.

Weeds that Should be Watched in Seed Producing Meadows

T. G. Raynor, B.S.A., Seed Branch, Ottawa.

Many red clover meadows are making shape for the seed crop. Now is the time to eliminate the weeds that are likely to become weed seed impurities in the small seed. A little time spent now may make a big difference in the price of the seed. It will be time well spent, too. If the clover field has been pastured, the stock should not have remained on it longer than the 20th of June and then if it had not been pastured close enough, the mower should have been run over it to level it, so that an even start could be made, and any weeds left to produce seed like curled dock, Canada thistle, wild mustard, etc., could be put out of business.

A weed seed very commonly found in red clover is rib grass or buckhorn, which most farmers know very well now, especially those who are producers of seed. This weed could be very largely eliminated by going over the meadows a few days after they have been mown, in narrow strips armed with a spud or hoe to cut them out just below the crown of the plant. The plants are easily seen at that time and unless the field is very bad, it need not take long to go over five or 10 acres. Rib grass, buckhorn, narrow leaved plantain, wild timothy, are names by which this plant is known. It has long narrow light green leaves, which grow from the root. It shoots up a number of flowering stems and has a head resembling, when in blossom, that of timothy, hence the name wild timothy. The seeds are small brown and oval on the one side, quite flat on the other, and has a dint which gives

it the appearance of a canoe. They have a mucilaginous coat which, when wet, will stick. This nature of the seed is made use of to effect a separation from red clover and alfalfa seeds with which it is all too commonly found.

SEPARATING BUCKHORN FROM CLOVER SEED

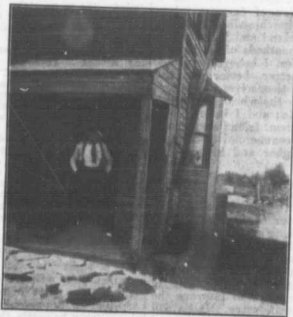
Any farmer without much trouble could easily



A Relic of Barbarism

The two photos reproduced on this page were snapped recently by an editorial representative of Farm and Dairy while driving in Carleton Co., Ont. While driving a distance of 4 miles it was necessary to pass through three toll gates, which in all charged 26 cents. There are now only a very few toll gates left. The one shown in the above illustration is at Ottawa that in this country our farmers and others are held up and made to pay to enter the city of Ottawa.

separate this seed from the amount he usually sows in one or two different ways. (1) By putting a couple of thicknesses of cheese cloth over some fanning mill screens and using a sprinkling can to wet it. Clover seed containing the buckhorn may be sprinkled over the wet cheese cloth. At first all the seed will stick a little, but by allowing it to dry slightly all the clover seed will shake off and the buckhorn will stick tighter. These may then be scraped off and the operation repeated. Two or three, or even more screens could be used at the same time. (2) The other way is to dampen all the seed and then mix with it dry sawdust or road dust. The dry sawdust will stick to the buckhorn and enlarge it. The separation can then be made by suitable screens which would let the clover seed through, but will retain the buckhorn. Of course these are slow processes and



Toll Gate, Fallowfield, Ont.

are not recommended for a farmer to clean the seed he would use on his own place. The weed itself is easily disposed of in a short rotation.

Curled Dock is another weed which there is little or no excuse for a farmer having in his seed. These weeds grow up tall and one plant will produce an enormous amount of seed. After a heavy rain at this season of the year it is easily pulled up by the roots, and if taken to

the fence, will be put out of danger in giving further trouble. Catchfly, or sticky cockle, is another plant to look after just now, both in red clover, and more particularly in alsike, where it usually revels. It is easily known by the sticky excretion when in blossom. It is a winter annual and pulling it or cutting it off near the ground when in blossom disposes of it completely.

A WEED TO BE RECKONED WITH.

Bladder Campion, bell weed, or rattle box, as it is sometimes called, is a plant to be reckoned with, and while as yet it is not blacklisted by the Seed Control Act, it will be very shortly, and is one of the very worst weeds existing to eradicate. These plants should be spudded well in the ground, and one or two handfuls of salt applied to kill the root where plants are not too plentiful. Canada thistles may be spudded, false flax and wild mustard pulled.

Later on, fox tail, trefoil and ragweed, may be greatly lessened, if a scythe is used on the killed out spots and any thin places where the weeds are coming on very thick. With a little care it will be seen that farmers can produce reasonably clean seed by paying attention to a few of such details as I have described even on comparatively dirty land.

In future, more than in the past, will dirty seed be discriminated against. It is up to the farmers to protect themselves by clean farming, sowing clean seed, and following up such practice by more or less weeding in the field.

Some Pointers on Haying

H. Johnson, Milledale Co., Ont.

Cut clover hay when it is in full bloom. Dew or rain should be allowed to dry off before cutting and the tedder put to work about half an hour after it is cut. If tadded twice the same day, the hay will be all the better. It should be raked into windrows and if the conditions are all favorable hauled to the barn the same day. If not ready to go to the barn, and the weather keeps dry, it may be allowed to be in the windrows over night. The next morning run the tedder lengthways of the rows then load with the loader and take to the barn.

Fine hay can be made by coiling it the same day it is cut, and allowing it stand for a couple of days. Then if the weather is favorable haul to the barn. Coiling, however, entails a lot of extra labor and does not give a good chance to use the hay loader.

Timothy should be cut when the anthers are turning a purple color. Many call this stage the second bloom, but it is a misnomer. The purple color is caused by the anthers dying.

Corn Cultivation.—After the corn is sown, and before the corn plants appear, we make use of the light harrow. We follow this with shallow cultivation so that the corn roots may not be broken and in order that the moisture may not be better conserved than it would be were deep cultivation practised. Corn should be cultivated as often as every seven or ten days throughout the growing season. Some of the prize corn at Guelph last winter was grown under such cultivation as have also some of the heaviest crops I have ever seen.—John C. Shaw, Oxford Co., Ont.

Spraying with Paris green mixed with lime is the safest, surest and most effective means of destroying the bugs. Bordeaux mixture should be used in blight stricken districts as a safeguard against early and late blight. All vines after the crop is harvested should be burned so as to get rid of any fungus spores. Scientists tell us that the spores will remain dormant for a number of years and be ready to attack the first appearance of a new crop.

FARM MANAGEMENT

Combating Turnip Lice

As turnips have been very lousy for the past two years in our section, we wish to find if there is any remedy for keeping them in check—G. W. P. Peel Co., Ont.

Turnip lice are difficult to deal with in an effective manner. Such well known farmers as Henry Glenindine, of Ontario County, recommends late sowing and adequate cultivation continued late on in the season to conserve the soil moisture and thus keep the turnips well in advance of the lice, and to keep up the vigor of the plants. Several remedies have been suggested by Entomologists, but they have not always proved so practical. Where large areas are to be dealt with, probably the best remedy suggested is to destroy the small patches of lice when they first appear. These insects multiply very rapidly and if they get to the early stage, they can be held in check quite effectively. Dusting with lime is recommended, but it is only practical on some patches.

Mr. Arthur Gibson, chief assistant entomologist, C.E.F., Ottawa, recommends treating the turnip aphid as follows: At the time the turnips are being hoed and thinned, the colonies of these insects should be searched for and any plants found to be infested should be cut out and the plant lice crushed under foot. When the insects are too numerous for this treatment much good may be done by spraying the restricted areas in time, with the ordinary kerosene emulsion, or whale oil soap, one pound in six gallons of water.

To Destroy Sparrows

Can you give me any practicable remedy for getting rid of sparrows? These miscreant pests swarm all day from morning until dark around our chicken coops and eat more than the same number of chickens. They are infested with insects, which take to the hens and chickens, doing much harm.—J. Metc., Northumberland Co., Ont.

The shot gun is perhaps the best remedy in the winter time, when you can get large numbers of the sparrows to congregate in one place. Large numbers of them can be killed by placing some screenings or small grain in a long narrow strip on sloping ground where you can shoot lengths ways at them No. 8 shot.

In the summer time probably strychnine is the most effective. Take five cents worth of strychnine and dissolve it in alcohol; then add about six ounces of water and soak some wheat in this over night and put the poisoned wheat where the sparrows will get it. Great care must be taken that no fowls or no other stock get any of this grain.—H.G.

Cost vs. Beauty

The proud owner says "this is a high grade Canadian, and this is a pure bred Holstein." The admiring visitor to the cow stable remarks, "What a beautiful cow!" The thoughtful student asks "What yield of milk and fat do they give?" The practical man enquires "What does their milk cost?" And the hard business sense of the dairyman leads him to determine cost of production of milk and fat through the medium of cow testing associations. The high grade pure bred may test low, while the common grades may possibly be producing milk at the lowest cost. No one knows definitely just what the cost is until some record is kept; milk may cost 2 cents per 100 lb., fat 25 cents per lb.; these test prices may be up to \$2.00 per 100 lb. milk and 50 cents per pound of fat with

some poor cows; or they may be reduced by good economical feeders to 35 cents per 100, and 19 cents per lb.

This all goes to prove that the careful dairyman, and particularly the average and possibly careless farmer, should take immediate steps to find out what profit each cow brings in. Enormous improvement, and largely increased profits have been made by the men who are sufficiently alive to their own interests to weigh and sample each cow's milk regularly and keep a record of feed consumed. Blank railway tags on application to the Dairy Commissioner, Ottawa, A good record for this month from a herd of 15 cows is an average of 1020 lb. milk, 3.9 test, 39 lb. fat. One grade in the herd gave 1520 lb. milk testing 4.0 cent. fat.—C.F.W.

Results of Root Crop Experiments

At the recent annual convention of the American Seed Trade Association, held at Niagara Falls, N. Y., Prof. C. A. Zavitz, of the Ontario Agricultural College, Guelph, Ont., delivered a paper "Root Crops," which was interesting and well received. It contained the results of careful tests conducted by the Agricultural College at Guelph, showing comparisons between the production of seeds of mangels, Swede turnips and carrots, home grown as compared with imported seed of the same class. On the whole home grown seed has proved higher in germination and more productive of roots than the imported seed. A large amount of work has been done to determine the influence of different selections of seeds upon the resulting crop. Ninety-four distinct experiments were conducted with large, medium-sized and small-sized seed. In eighty-five per cent of the separate tests the larger seeds produced more heavily than the smaller. In a series of experiments in planting seed at different depths in the soil, through a series of years, on land of low and higher levels, average clay loam soil, five years with mangels and turnips, four years with Swede turnips and carrots, average results showed best results at half an inch below the surface.

Five years' experiments in thinning roots at different distances apart in the rows showed that as the distance increased the average size of the root increased in crop, with a decrease in the percentage of dry matter and also in yield of roots per acre. In five years' experiments in sowing sugar beets in rows at different distances apart, by having rows closer together, furnished larger yield of roots and larger yield of sugar per acre. In thinning sugar beets at different stages of growth in each of five years the greatest average yield per acre was obtained when thinning the plants when about two inches in height.

A Protest Against The Daylight Bill

Ed. Farm and Dairy.—The measure which was brought before the House of Commons during the past session and which is commonly known as the "Daylight Saving Bill" has been referred to a select committee to obtain evidence, and will no doubt be brought before the House again next session, and unless strong representations are made, it will doubtless become law. I have not noticed in any of the farming or horticultural papers, any discussion on this point, and think it will be well to bring the same to your notice, and that of your readers, as it is one which will affect fruit growers and farmers generally, particularly those branches of agriculture which have anything

to do with the catching of trains. In the first place it seems to me that the measure is intended to benefit a class of people who already have too much consideration at the hands of our Legislatures. It is proposed to put the clock back 80 minutes so that the City men will get up an hour and twenty minutes earlier than in his usual wont and that there will be that length of time for recreation after the close of business.

If the measure becomes law, it means that the railway time tables will be made to conform to the new state of affairs, and the farmers who have to ship their milk to the city on early morning trains, and who are obliged to start milking anywhere between four and half past five in order to accomplish this, will virtually have to start their operations an hour earlier. I feel quite confident that the majority of farmers do not realize what this means. The farmer does not need to have the clock put back, as his business calls him early in the morning, and in the busy seasons such as harvest, the harvest very often necessitates his working quite late in the evening. An hour and thirty minutes tacked onto the beginning of the day to suit city men who are too lazy to get up in the morning, is asking too much when one considers the very large proportion which the farmers form of our total population. With the fruit growers, especially in the Niagara district, the change of time will affect them at the latter part of the day, especially during the summer and fall, during the picking season. All those engaged in this business will remember that it is a very common thing to have to wait until the dew has become dry on the bushes and trees before one can pick. This is particularly so in connection with berries, and if the trains are scheduled to start one hour and 20 minutes earlier than they are at the present time, it is simply out that much time off the picking day.

A Committee was formed to confer with the representatives of the Canadian and Dominion Express Companies to find a way if possible to rearrange their services so that the growers would have a longer time in which to pick, but their great excuse was that they must be into Montreal in time for the early morning market, and in order to do this, it was necessary to start the trains when they did. If the Montreal market is held about eight o'clock under the present arrangement, I suppose the same time will hold good under the new regime, and this will necessitate arranging the schedule of trains according to the clock.

The matter in my opinion is too serious to be allowed to pass without some protest, and I therefore take the liberty of bringing the matter before you, and if the city men want to save the daylight, let the manufacturers open their factories at half past five, a.m., and close at half past four, they will then accomplish the same thing without adopting the childish method of putting the clock back.—A. E. Kimmis, Wentworth Co., Ont.

The effort made in a recent number of "Farm and Dairy" to bring about an investigation of freight rates with a view to the prevention of the evils of "comparing" by the big transportation companies is most commendable. It should have the

heartly and active support of every Canadian farmer.—Hugh McFadden, Sherbrooke Co.

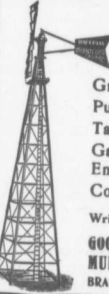
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HORTICULTURE

The Fruit Crop Outlook

Fruit crop conditions have not changed since our report of last week. The following information from local correspondents of Farm and Dairy have been received since that report was published:

Queen's Co., N.S.—The prospects are good. Apples and plums have set well. Caterpillars are being kept at a little is being done to control them. I have sprayed for two or three years and have few insects, except green aphids, which are particularly bad on Japan plums and hard to kill.—Geo. H. Hardy.

Ontario Co., Ont.—The set of apples has been very favorable. Codling moth is showing but spraying is practised extensively.—Jas. A. Rider.

Welland Co., Ont.—There will be few apples this year. Not much spraying is done.—Ro. A. Rice.

Elgin Co., Ont.—Bloom was heavy on Greenings, but light on Baldwins. The fruit has set well and we look for a fair crop with Baldwins shy.—J. Webster.

Essex Co., Ont.—Set of apples has been very good. Some winter varieties are not full and Baldwins, short. June drop has been about normal.—E. E. Adams.

Grey Co., Ont.—There will be three times as many apples as last year. Ten times as much spraying is being done than previously. Codling moth is prevalent in orchards not sprayed.—J. G. M.

Growing Strawberries

The illustration on this page shows a young strawberry patch with Dutch set onions between the rows. The photograph was taken recently by a representative of Farm and Dairy on the fruit and vegetable farm of Mr. J. P. Dodds, Peterboro Co. In conversation with Mr. Dodds, some practical pointers on strawberry culture were gleaned.

"The varieties that I grow principally are August Luther for early, Enormous for medium and Brandywine for late," said Mr. Dodds. "All these are sure croppers. Before planting, I give the plants a mud bath for about 24 hours. In a tub I mix heavy soil and water to a depth about five inches and thick enough so that it will just go through the fingers. The plants are put in this and when taken out the roots are not allowed to become exposed to the air. The plants are set every 18 inches in rows that are 36 inches apart. I use a trowel for planting."

Before giving a definite order for planting, Mr. Dodds makes sure that no substitution will be practiced and arranges that the plants will be shipped on the dates requested by him, so that he will have different quantities coming at different times in order that the plants may be fresh on arrival.

Paint Without Oil

AGENTS WANTED

Remarkable Discovery The Cuts Down the Cost of Paint Seventy-Five Per Cent.

A prominent manufacturer has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder. All that is required is cold water to make it. It is as good as any Proof, Fire Proof, and as durable as any Weather-oil paint. It adheres to any surface—stone or brick—and looks like oil paint, and costs about one-fourth as much.

A farmer can paint his House, Barns and Fences at very little outlay. One quart is equal to one gallon of oil paint. Write to the Powderpaint Company, 26 Cold Street East, Deer Park, Toronto. Full information and color card with color card and price list will be mailed at once.

rival. Mr. Dodds does not think it pays to use home-grown plants. He told our representative that he could make more money by leaving the plants in the old rows and selling the fruit than by taking same and using them for the new plantation.

"Within two or three days after planting," continued Mr. Dodds, "the ground is gone over with a rake. Then it is cultivated every week at least throughout the season until frost comes. The hoe is used when necessary."

"I do not believe in pinching off the blossoms the first season as is usually recommended. There is no benefit that I can see and it bleeds the plants. The fruit that may be taken on off of these will practically pay for the plants. I allow the first runners to root and nip off the weaker ones. I allow only two runners, one on either side of the parent plant, to root the first season. These will set a sufficient number of plants."

"I believe in growing crops between the strawberry rows during the season. I take two or three crops of onions, radishes, lettuce, herbs and so on. This is done during the second year of growth as well as the first. In addition to the small quantity of fruit secured during the first season,

like Paris green, which can be applied either as a powder or in liquid form. If, as a powder, it should be dusted on the plants after having been mixed with 30 times its bulk of air-slaked lime or flour.

"In applying poisons as a liquid, use not over one-third of a pound of Paris green or two pounds of arsenate of lead in 50 gallons of water."

"The beetle can be kept away by dusting the plants with air-slaked lime mixed with kelp-broth. This, however, is only a repellent driving off the insects, but not killing them. To destroy them a poison must be used."

"The larvae can be killed by using tobacco dust in the soil around the plants; or, stick a few holes, four or five inches deep, in each hill and insert teaspoonful of calcium carbide, filling the hole with earth. Land plaster with turpentine is also a preventive, and it may be added that a pinch nitrate of soda in each hill will act both as an insecticide and a fertilizer."

Cutworms on Vegetables

Arthur Gibson, Central Experimental Farm, Ottawa.

Cutworms are dull looking caterpillars very much the color of the ground in which they hide during



There is No Waste Ground Where Inter-Cropping is Practised

Onions, radishes, lettuce and other crops are grown between the strawberry rows on the market garden of J. P. Dodds, Peterboro Co., Ont., a part of whose place is shown in the illustration. The photograph was taken by a representative of Farm and Dairy, who secured also the information that is reported in an article on this page.

I fruit the patch for two years. At the end of the first season and as soon as freeing comes, I put three inches of well rotted manure on either side of the plants, but not on top of them. In the following spring, this is worked in and the ground is cultivated throughout that season. I apply a fertilizer right among the plants made up of nitrate of soda, 100 lbs.; sulphate of potash, 95 lbs.; acid phosphate, 200 lbs. This is the quantity for an acre."—A.B.C.

The Striped Cucumber Beetle

The striped cucumber beetle is to be reckoned with in the months of June and July by the growers of cucumbers, squashes, pumpkins and melons. In some seasons the beetles have been known to destroy large patches of these members of the melon family in a few days. State Zoologist Surface, of Pennsylvania, gives the following information, in condensed form, in regard to this pest:

"The earliest measure is to prevent damage by covering young plants with a net or cloth with a finer mesh than the common mosquito netting. They will not crowd through mosquito netting if lime and turpentine be placed on the ground within it. The adults can be killed by an arsenical poison,

the day. In Ontario, there are a great many different kinds of cutworms, but those which are responsible for most of the damage are the red-backed cutworm and the dark-sided cutworm. The variegated cutworm and one or two of the other well known kinds, occasionally occur in enormous numbers and when such happens, their feeding habits change considerably and they feed by day as well as by night. On the whole, cutworms are the most troublesome insects which market gardeners have to deal with. Fortunately their injury is mostly over by the end of June.

The remedy for cutworms which has been found to give the best results, is the poisoned bran remedy. This is made by moistening the bran slightly with sweetened water and then adding gradually the Paris green. One half a pound of Paris green is sufficient to poison 50 pounds of bran. When required for garden use all that is necessary is to sprinkle a little of the poisoned bran by hand around such plants as are liable to be attacked. If used on a large scale, the mixture may be distributed by means of a Planet Jr., Iron Age or other wheel seeder.

All weeds still standing at the end of the summer should be cut down

and burned as early as possible in autumn. This will destroy many of the eggs from which the cutworms hatch and also do away with suitable places for the deposition of other eggs laid by moths before winter.

For Peach Tree Borers

There is no more serious pest of the peach tree in some localities than the peach tree borer. It is the larva of a clear-winged moth, which flies by day, hatching quickly from its place to place. The egg is laid during July and August on the bark at the base of the tree, and after some days the larva or grub hatches and commences to feed at the surface of the bark, finally eating its way through and boring up and down and across beneath the bark, often cutting off the tota sap supply, and causing the tree to wither as though scalded.

After the pests have passed beneath the bark, they are concealed and can not easily be reached with insecticides. They should then be killed by cutting them out, always cutting lengthwise rather than crosswise of the bark, or by piercing them with a pointed wire, when they will die. This is, however, a great loss of time, and is, of course, after some injury has been done to the tree.

By far the best plan is to prevent this injury and the necessity of cutting them out by covering the base of the trunk of the tree with some liquid material that will prevent the moth from laying its eggs; or, destroy the larvae before they enter the bark. The best time of year for this is the latter part of June, when the base of each tree should be sprayed with boiled lime-sulphur wash, either commercial or home-boiled, the same as for San Jose scale, applying to each tree from a pint to three pints, according to size. The best way to do this is with a spray pump, with a short extension rod, carrying the nozzle at an angle, but where there are only a few trees it can be applied with a whitewash brush.

Painting near the ground and below with white lead and linseed oil will serve the same purpose, and be safe, as has been proven by Prof. H. A. Surface, State Zoologist for Pennsylvania, in his experiments. Mr. J. L. Shroy, of Lancaster Co., Pa., writes to Professor Surface that he has succeeded perfectly in preventing the borer by rubbing the base of the tree with equal parts flowers of sulphur and salt, in June and again in August.

Thin the fruit on the trees before it gets too large.

If you want to make the most from your apples this year, get your neighbors interested and organize a co-operative fruit association.

Strawberry plants in both the new and old plantations should be sprayed twice during the season with arsenate of lead in the portion of 3 lbs. to 50 lbs. of water. Before using add 3 lbs. of slaked lime.—J. P. Dodds, Peterboro Co., Ont.

BLACK WATCH

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Gapes,

Bert S.

Gapes in calves is a disease which is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal.

The gapes in calves is a disease which is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal.

There are many causes for gapes in calves, and it is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal. It is known to be caused by a certain kind of infection, very common in calves, and is often very fatal.

A much used horse-hair and loop. In many of the cases caught in the Great West when these sick chickens were checked, disinfected, and up will return some years.

Keeping Po

In keeping from lice they are free from lice. One of the best experiments, etc. I have ever seen. The way to get rid of a dusted kind of lice is to use a single application sufficient. When sent on a horse or cow, it should be used. The top low up a first with a second days to a week, if treated at the necessary intervals. The operation. To the clo

POULTRY YARD

Gapes, Cause and Treatment

Bert Smith, Lambton Co., Ont.

Gapes is a disease that seldom, if ever, attacks adult birds. It is confined almost entirely to chicks from four to eight weeks old, but has been known to attack older chickens, especially those of the broiler class, and is often very troublesome and hard to check, some chicks nearly always succumbing to the malady. The chicks open their mouths and gape and have a choking cough. The cough becomes more frequent as the disease advances.

CAUSE.

The gaping of the chick is caused by a small, red, V-shaped, threadworm which are attached to the coat of the windpipe. The origin of these worms has caused wide-spread discussion, both in Europe and America. Various causes have been offered but none have been wholly accepted. Mr. A. M. Holstead believes that the gape worm was the product of the head louse, which laid its eggs in the nostrils and the eggs then passed into the windpipe and so caused the gape worms. Others believe it to be caused by eating large worms. The chicks coughing up the worms spread the trouble, for when these worms are eaten by other chicks they will become affected in the same way.

TREATMENT.

There are numerous cures so well known. A favorite one is the giving daily of camphor in grains the size of a grain of wheat, or a pea. The odor reaches the worms in the windpipe and destroys them, while the camphor lies in the crop. Another remedy is to take the feather and strip it to within an inch of the root, moisten it with turpentine and insert it into the windpipe, twist it round and withdraw quickly. The following ointment is sometimes recommended: one ounce of mercuric ointment, 1/2 oz. sulphur, 1/2 oz. crude petroleum, 2 oz. lard, mix thoroughly and keep from air. Apply with the finger, rubbing a little into the down of the head and throat of the chick when hatched. Avoid too liberal use as a will at all events destroy the head lice whether the disease is prevented or not.

A much used remedy is to take a horse-hair and twist it, thus forming a loop. Insert this in the windpipe and twist around, then pull out. Many of the worms will have been caught in the loops and detached. Ground when once occupied by diseased chicks is liable to be dangerous for chicks for some years. If not disinfected, as the worms when coughed up will remain in the ground for some years.

Keeping Poultry Free from Lice

In keeping a poultry plant free from lice there are two points of attack; One, the birds themselves; the other, the houses, nest boxes, roosting expences, etc. For the birds themselves experience has shown that the best way to get rid of the lice is by the use of a dusting powder to be worked into the feathers. In using any kind of lice powder on poultry, it should always be remembered that a single application of powder is not sufficient. When there are lice present on a bird there are always un-
hatched eggs of lice ("nits") present. The proper procedure is to follow up a first application of powder with a second at an interval of four days to a week. If the birds are badly infested at the beginning it may be necessary to make a third application. To clean the cracks in crevices of the woodwork of houses and

nests of lice and vermin a liquid spray or paint is probably the most desirable form of application.

HOME MADE LICE POWDER.

The lice powder which the Maine Experiment Station uses is made at a cost of only 7 cents a pound in the following way:

Take 3 parts of gasoline.
1 part of crude carbolic acid;
Mix these together and add gradually with stirring, enough plaster of Paris to take up all the moisture. The liquid and the dry plaster should be thoroughly mixed and stirred so that the liquid will be uniformly distributed through the mass of plaster. When enough plaster has been added the resulting mixture should be a dry, pinkish brown powder having a fairly strong carbolic odor and a rather less pronounced gasoline odor.

Do not use more plaster in mixing than is necessary to blot up the liquid. This powder is to be worked into the feathers of the birds affected with vermin. The bulk of the application should be in the fluff around the vent and on the ventral side of the body and in the fluff under the wings. Its efficiency, which is greater than that of any other lice powder known to the writer, can be very easily demonstrated by anyone to his own satisfaction. Take a bird that is covered with lice and apply the powder in the manner described. After a lapse of about a minute, shake the bird, loosening its feathers with the fingers at the same time, over a clean piece of paper. Dead and dying lice will drop on the paper in great numbers. Anyone who will try this experiment will have no further doubt of the wonderful efficiency and value of this powder.

REMEDY FOR ROOSTS.

For a spray or paint to be applied to roosts, perches, nest boxes or walls and floor of coops, the following preparation is used: 3 parts of kerosene and 1 part crude carbolic acid. This is stirred up when used and is applied with any of the best sprayer pumps or with a brush. In both of these formulae it is highly important that crude carbolic acid be used instead of the purified product. Be sure and insist to the druggist on getting the crude carbolic acid. It is a dark brown, dirty looking liquid and its value depends on the fact that it contains tar oil and tar bases in addition to the pure phenol (carbolic acid).

The Necessity For and Care of Growing Chicks

J. Marcy, Simcoe Co., Ont.

It is most important that proper care be given to growing chicks. Proper care eliminates most troubles in disease and parasites. Crowding the chicks at night means colds, then roup. Trying to raise chicks without good food invites disaster. Water left in the trough at night means diarrhoea. No grit in the feed and they become crop-bound and die.

I have people come to see me and ask me to go out and see their chicks. They are dying off and they don't know why. I go and see a poor hen covered with lice, a clutch of chicks the same way all covered with head-lice, no shade or green food, or oyster shell furnished to help the chicks digest their food, just hard grain and no variety, and then they wonder they don't grow. I only wonder how they grow at all.

Soft food produces feathers, hard food a scanty growth; so try and combine the two feeds if you can. Two or three of oyster shells are before my chicks all the time, and I use a medium. The same with grit. Every second day or so a cooked vegetable mash is given them. All the rest here they can eat. Ground wheat, buckwheat, oats, barley, sun flower

seed together, are also furnished. Green food of almost any kind is furnished the chicks. Plenty of shade is provided.

Quarters with roosts, also brooders, and coops with clucking hens are kept scrupulously clean. Fresh water is furnished half-dozen times a day. Chicks are examined now and then for signs of vermin. When cockerels become troublesome to pullets they are separated and two grades made. Those for the market are shut up and fed fattening foods, and those for breeding and for layers are fed along the way I have spoke of. The cockerels only waste their vitality and retard their growth if allowed to remain with the pullets. They also injure the pullets by their activity.

The importance of having clean houses and poultry was brought home to me, when I was injured six weeks ago by lumber falling off a car, laying me up so all I can do is write. Mrs. Marcy found things in right condition and has been able to look after them just as well as I could, so it is a most necessary part that you give proper care to your chicks and their quarters, and if you are unable to attend them yourself, whoever does so, is not handicapped and is able to keep things going until after you can look after things yourself.

Keeping and Marketing Eggs

The eggs whether intended for market or for hatching, should be kept in clean cases either of wire spring pattern or pasteboard filled with sawdust or in a moderately cool place that is clean and well ventilated, and where the temperature does not go below 50 or above 60 degrees. This room should not contain any vegetables, oil or any other matter having strong odor, as such will taint the eggs. The eggs should be packed in the cases small end downward. Where they are intended for hatching it will be a wise plan to turn them every day or two. For this purpose a rotating egg cabinet will prove a labor saving essential. These cabinets are a practical invention devised for the purpose of caring for eggs for hatching, providing means for turning the eggs with little expenditure of time and no loss through breakage or careless handling. These cabinets can be purchased from any dealer in poultry supplies in our large cities, and they generally have them in several sizes.

In earlier times, eggs, if sold at all, were marketed near the place where they were produced, and many are still sold in local markets, but improved methods of transportation the market has been extended, and large quantities are now being shipped to distant points. Special egg cases are required for carrying eggs long distances.

Eggs which are to be shipped, should be perfectly fresh and should never be packed in any material having a disagreeable or strong odor. All new laid eggs should be graded according to size and color. Musty straw, cardboard, bran or other packing material having a disagreeable odor will injure the flavor and keeping qualities of the eggs packed in it.

Keeping eggs near a lot of apples, or other goods having a pronounced odor during transportation, has been known to injure the flavor of the eggs and reduce their market value. Micro-organisms may enter the minute pores of the eggs and start fermentation, which ruins the eggs for market purposes.

Eggs which have been kept in a warm place, or where the germ has been a long time in a broody hen, will also become rotten and the presence of a few such eggs in a case will result in a loss in price on the whole shipment. The normal mucilaginous coating of the egg shell, which egg protects it and somewhat hinders the entrance of the organisms which start fermentation. This coating is removed or injured by washing the eggs and the keeping quality of the eggs thereby diminished. For this reason it is not a good plan to wash eggs which are to be shipped some distance from market or which are not intended for immediate use.—F.C.E.

Five Months' Egg Record

We have received the following communication from Mr. Geo. R. Tylee, of Rosemere:

I wintered 90 old hens and 100 pullets, most of them being hatched from the middle of May to the end of June. Of course they did not begin to lay very early. However, I think that the egg yield has been fairly good. In January got 436; February 958; March, 2,101; April, 1,865; May, 1,736; total, 7,196. I am very well satisfied with my new house; it is 50 feet long, 16 feet wide, and 7 feet high, divided into four pens with cement floors, with only one thickness of G. and T. boards, with a roofing paper over them and straw loft, Windows are 6 by 4 ft. in each pen, with cotton ventilation over the top, and curtains let down in front of roosts on cold nights.

I had no trouble with sick birds and no frozen combs. I am adding 60 sets to my house this summer, and will winter at least 400 hens. As to feed, they had wheat corn, buckwheat and oats, but not much corn. They were fed morning and night in the litter and always dry bran in hopper, shell and grit; green bone was fed every second day with mangels.—F.C.E.

Points

Variety in the ration is the one thing needed to make the hens lay and keep them at it. The ration must be generous and diversified.

A good dry poultry house, when we have showers, is an important requirement. Many diseases often originating through dampness produced by a leaky roof.

If we can buy only a few hens and a male to start with, be sure that we select the best of the breed we like best and provide them with a good comfortable house and yard.

The homeopathic remedy for roup, with its characteristic cough, tenacious mucus about the beak, with difficulty in breathing, is to give acconite. One drop of acconite in a gill of water given to the sick bird to drink.

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Your choice of the following, for securing Only One New Subscription for this paper at \$1 a year: Diseases of Poultry, Duck Culture, Poultry Pocket Money, Poultry Architecture, Poultry Feeding and Fattening. Send us only ONE New Subscription at \$1 and we will send any of the above free of cost. Write for sample copies.

CIRCULATION DEPARTMENT
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the time, and the farmer is very unfairly required to cleanse and deodorize them. A simple rinsing with cold water immediately after emptying would involve little labor for the retailer, while it would save the farmer an immense amount of trouble.

The customer also has his duty. He should see that the milk, as soon as it is delivered at his door, is placed in a temperature of not more than fifty degrees, and is protected from dirt and flies. The consumer should also see that the bottles are returned scrupulously clean. Pure milk requires co-operation all along the line.

Creamery Department

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

Operating the Babcock Test

In order to insure reliable results in milk testing one must secure a proper representative sample of the milk to be tested, to get a true sample from the composite test bottle. Fill the test flask, and give careful attention to all the remaining details of the work. Composite samples give reliable results, and save the trouble of daily testing. After a cow is milked and the milk weighed, pour it from one bucket into another and then back before taking the sample. Immediately afterwards take some into a cup or measure, and put some into the composite bottle. The same quantity should be added each time, and at the end of each week the bottle will contain a representative sample of the milk for that period.

The contents of the composite bottle should be thoroughly fixed. If the cream has set or is hard to mix, then more easily dissolved and mixed with 17.6 c.c. capacity pipette, and put in the test flask. To prevent spilling, the flask should be held at an angle to allow the air to escape.

SULPHURIC ACID.

For milk-testing, sulphuric acid of 1.827 specific gravity is used. The acid bottle should be kept corked when not in use, as it absorbs moisture from the air if exposed, and becomes weak. The acid and milk ought to be about 100, 70 deg. in temperature before mixing. Do not neglect of temperature and strength of acid that causes a white curdy matter, or a black colored substance, to appear in the fat column. This temperature may be secured by placing the test bottles in a water-bath of the desired heat after measuring. The acid may be cooled or heated in the same manner, but before measuring. Altering the strength recommended. All bottles containing sulphuric acid should have glass stoppers. The bottles should always be labelled "Poison," and kept out of the reach of children when not in use.

The acid is measured with a 17.5 c.c. glass measure, and poured down the inside of the neck of the test flask without disturbing the milk. The test flask should be held at an angle to allow the air to come out as the acid goes in, to prevent spilling. The samples may be shaken separately by hand or together in a cradle. It is possible to dissolve the milk in less than the quantity of acid added, and sometimes a clear layer of acid remains at the bottom. This can be overcome by giving the bottles a good

shaking with a reverse motion before finishing.

WHIRLING THE BOTTLES.

The speed at which the machine has to be turned depends on the gearing, and the diameter of the rollers. If the bottle-wheel of the machine is 12 inches in diameter, that wheel should be made to turn 980 times a minute. If 18 inches in diameter, 800 revolutions a minute; and if 24 inches in diameter, 693 revolutions a minute; and if the bottle-wheel is 18 inches in diameter and geared to revolve 10 times for one turn of the handle, the operator should turn the handle 80 times a minute to attain the necessary speed. If the bottle-wheel be geared by friction takes place. For factory or creamery use, the steam-turbine machines are far preferable to the others.

After turning the tester for six minutes, hot water, 180 deg., is added up to the neck of the flask. Rain or soft water should be used for this purpose. After adding the water, the thermometer is turned for three minutes, then more water is added to bring the liquid up in the neck of the flask to between the 7 and 10 mark. Another minute's turning, and the operation is complete. If only a few samples are to be tested, the water may be added with the milk pipette; but where a large number have to be done, a can with a rubber tube and a pinch-cock is handiest.

READING THE TESTS.

A pair of fine-pointed dividers is of great assistance in taking the measurement of the fat column. The fat between it and the water to the top of the column. Having taken that span with the dividers, one point is placed at 0, and the other will show the percentage of fat on the scale on the neck of the bottle. Each large division represents 1 per cent., and each small space two-tenths, or 0.2 of 1 per cent. In very cold weather before a reading can take place. This may be prevented by keeping up the temperature of the samples. Hot water may be put in the pan of the machine, and the test flasks placed in warm water after whirling is finished, until the readings are recorded. This precaution is not necessary for the greater part of the year.

Disposing of Milk at a Profit

How to dispose of milk at the greatest profit is one of the questions Prof. E. H. Farnham, of Wisconsin dairy school, answers in a recent issue of Hoard's Dairyman. He says: "In answering such a question as the above, one must know, first, at what season of the year the herd produces the most milk; second, the value of the by-products, such as whey and skim milk, for feeding purposes; and, third, the influence of selling milk in the three different ways on the fertility of the farmer's soil. This latter point is one which too many farmers are apt to ignore, but it is a very important one, as a farmer should consider his soil in the same way as he does his bank account. He cannot expect to be constantly drawing money from the bank without contributing to make deposits. The same is true of his farm; he cannot prosper by robbing the soil and returning nothing to it.

It is estimated from the chemical composition of milk, butter and cheese, that the fertilizing ingredients in a ton of butter are worth \$2.31, in whey \$4c., in skim milk \$2.17, in cheese \$14.19 and whole milk \$2.17. The fertilizing value of skim milk is estimated by different farmers as worth all the way from 20c. to \$3c. a cwt. Careful experiments have shown that the feeding value of whey is about one-half that



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Taking the foregoing information, together with the price offered for milk at the creamery, cheese factory and condensing factory during the different months of the year, a farmer can easily calculate which would be the most profitable way for him to dispose of the milk on his farm. A simple illustration of such a calculation may be of some assistance.

During the year 1907, the average market price of butter was 27c. and of cheese 13c. A calculation of the amount received a cwt. of milk gives the following figures: One hundred pounds of 4.0 per cent. milk sent to a creamery would make about 4.5 pounds butter, which multiplied by 27 gives \$1.21. The 85 pounds of skim milk which would be returned from the creamery or retained on the farm if a farm separator was used for skimming the milk, may be estimated as worth 24c. adding this to \$1.21 gives \$1.44 a cwt. received from the milk sent to the creamery, and when the skim milk is fed on the farm and the cream only sold, very little fertility is removed from the soil.

If 100 pounds of 4.0 per cent. milk is sent to a cheese factory, this would give about 10 pounds of cheese, which at 13c. a pound makes \$1.30; 96 pounds of whey are worth one-half the value of skim milk, or 12c., which added to \$1.30 gives \$1.42. The whey is returned to the farm but its feeding value and the fertilizing ingredients it contains are not equal to that of the skim milk, so the whole receipts a cwt. of milk at the cheese factory in this case are \$1.42 against \$1.44 paid at the creamery. The difference in the amount of fertilizing ingredients removed, widens the gap between the two prices.

If the milk was sent to a condensing and an average price of \$1.50 a

cwt. was received for the milk, the value of the fertility removed from the farm would more than cover the difference in the price received per cwt. of milk.

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Circulation Department **FARM AND DAIRY** PETERBORO - CANADA



3^d Can a man realize his wasted golden hours of opportunity, let him not waste other hours in useless regret, but seek to forget his folly and to keep before him the lessons of it.

Sowing Seeds in Danny

By Nellie L. McClung

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(Continued from last week)

SYNOPSIS—The Watson family live in a small town in Manitoba. The family consists of Mr. Watson, a man of few words, who works on the "section," and nine children. Pearl Watson is an imaginative, clever little girl, 12 years old, and is the mistress of the family. Mrs. Watson is often employed to wash and work for the widow of Pearl's father, and she has beautiful theories. "Was Danny" get theories on Danny. Camilla Bess is a capable young woman who looks after Mrs. Watson's domestic affairs, and occasionally helps her to apply her theories. Mrs. Watson loses so much to install her ideas and theories into poor Mrs. Watson's head, whenever they present themselves. Mrs. Francis is known as the "pink doctor" of the Watsons. She has an amusing time in Chapters, and is the "pink doctor" of the Watsons. She is a clever in his profession, but temperance. Dr. Barner, the old hand was one of Mrs. Watson's special duties, and she endeavors to get the Watson children interested. Mrs. McArthur, the next door neighbor of the Watsons, has a special sympathy for Mr. Watson. A treat was given Pearl and Danny in Chapter 5, when Mr. Bess went to town for them to attend a musical concert. Mr. Motherwell is a well off but very stingy farmer. His dealings with the Watsons are a study in Chapter 7. He has a good indication of his character. A year or two previously in a fit of generosity, he donated the caboose of his threshing outfit to the Watsons as an addition to their home. He afterwards regrets this move, and demands payment. After much discussion it is decided that Pearlie Watson shall go and work with Mrs. Motherwell and thus wipe out the stain.

A light broke over his face again. He went behind the buggy and lifted the hind wheels. While he was holding around the back of the buggy his neck if his efforts were successful, Jim Russell came into the yard, riding his dun-colored pony Chiniquy.

He stood still in astonishment. Then the meaning of it came to him and he rolled off Chiniquy's back, shaking with silent laughter.

"Come, come, Arthur," he said as soon as he could speak. "Stop trying to see how strong you are. Don't you see the horse wants a drink?"

With a perfectly serene face Jim Russell unfastened the chuck, whereupon the horse's head was lowered at once, and he drank in long gulps that water that had so long mocked him with its nearness.

"Oh, thank you, Mr. Russell," the Englishman cried, it is delightfully clever of you to know how to do every thing. I wish I could go and live with you. I believe I could learn to be a farmer like you."

Jim looked at his eager face so cruelly bitten by mosquitoes.

"I'll tell you, Arthur," he said smiling, "I haven't any need for a man to work, but I suppose I might hire you to keep the mosquitoes off the horses. They wouldn't look at Chiniquy. I am sure, if they could get a nip at you."

The Englishman looked perplexed.

"You are learning," as well as any person could learn," Jim said kindly. "I think you are doing famously. No entirely new man, you'll be a rich landowner some day. Don't be a bit discouraged. I am a proprietor of the A. J. Wemyss Stock Farm, writing letters to the agricultural papers, judge of horses at the fairs, giving lectures

at dairy institutes—oh, I think I see you, Arthur!"

"You are chaffing me," Arthur said smiling.

"Indeed, I am not. I am very much in earnest. I have seen more unlikely looking young fellows than you do wonderful things in a short time, and just to help along the good thing, I am going to show you a few methods about taking off harness that may be useful to you when you are president of the Agricultural Society of South Cypress, or some other fortunate municipality."

"Oh, thank you, Mr. Russell," he said.

That night Arthur wrote home a letter that would have made an appropriate circular for the Immigration Department to send to prospective settlers.

CHAPTER XIV.

The Faith That Moveth Mountains

When supper was over and Pearl had washed the heavy white dishes, Mrs. Motherwell told her, not unkindly, that she could go to bed. She would sleep in the little room over the kitchen in Polly's old bed.

"You don't need no lamp," she said, "if you hurry. It is light up there."

Mrs. Motherwell was inclined to think that of Pearl. It was not her soft brown eyes, or her quaint speech that had won Mrs. Motherwell's heart. It was the way she scraped the frying pan.

Pearl went up the ladder into the kitchen loft, and found herself in a low, long room, close and stifling, one little window whose light against the eastern sky and on its innumerable flies buzzed unceasingly. Old boxes, old bags, old baskets looked strange

and shadowy in the gathering gloom. The Motherwells did not believe in giving away anything. The Indians who went through the neighborhood each fall looking for "old clo'" had long ago learned to pass by the big stone houses.

The Indians do not appreciate a strong talk on the shiftness of the way they should, with a vision of a long cold winter ahead of them.

Pearl gazed around with a troubled look on her face. A large basket of old carpet rags stood near the little bed. She dragged it into the farthest corner. She tried to open the window, but it was nailed fast.

Then she determined look none in her eyes. She went quickly down the ladder.

"Please ma'am," she said going over to Mrs. Motherwell, "I can't sleep up there. It's full of diseases and mosquitoes."

"It's what?" Mrs. Motherwell almost screamed. She was in the pantry making noise.

"It has old air in it," Pearl said, "and it will give me the fever," said Mrs. Motherwell glared at the little girl. She forgot all about the frying pan.

"Good gracious!" she said. "It's a queer thing if hired help are going to dictate where they are going to sleep. Maybe you'd like a bed set up for you in the parlor?"

"Not if the windies ain't open," Pearl declared stoutly.

"Well they ain't; there hasn't been a window open in this house since it was built, and you're not going to be, letting in dust and flies."

Pearl gasped. What would Mrs. Francis say to that?

"It's in yer graves ye ought to be then, ma'am," she said with honest conviction. "Mrs. Francis told me never to sleep in a room with the windies all down, and I as good as promised I wouldn't. Can't we open that wee windy, ma'am?"

Mrs. Motherwell was tired, unutterably tired, not with that day's work alone, but with the days and dreariness; the past barrow and bleak, the future bringing only visions of heavier burdens. She was tired and perhaps that is why she became angry.

"You go straight to your bed," she said, with her mouth hard and her eyes glinting like cold flint, "and none of your nonsense, or you go straight back to town."

When Pearl again reached the little stifling room, she fell on her knees and prayed.

"Dear God," she said, "there's a gurms here as thick as hair on a dog's back, and You and me know it, even if she don't. I don't know what to do, dear Lord—the windy is nelt down. Keep the gurms from gettin' into me, dear Lord. Do you mind how poor Jeremiah was let down into the mire and ye tuk care o' him, Lord. Poor ma has enough to do without me comin' home clutterin' up the house with sickness. Keep ye open on Danny if ye can at all, at all. He's awful stirrin'. I'll try to git the windy riz to-morrow by hook or crook, so mebbe it's only to-night ye'll have to watch the gurms."

Pearl braided her hair into two little pigtails, with her little dilapidated comb. When she brought out the contents of the bird-cage, and the orange rolled out, almost frightening her. The purse, too, rattled on the bare floor as it fell.

She picked it up, and by going close to the fly-specked window she counted the ten ten-cent pieces, a whole dollar. Never was a little girl more bappy.

"It was Camilla," she whispered to herself. "Oh, how Camilla and I never said 'God bless Camilla,'—with a sudden pang of remorse."

She was on her knees in a moment

and added the postscript.

"I can send the orange home to ma, and she can put the skins in the chest to make the things smell nice, and I'll git that windy open to-morrow."

Clasping her little purse in her hand, and with the orange close beside her head, she lay down to sleep. The snoring of the orange made her forget the heavy air in the room.

"Anywa," she murmured contently, "the Lord is attendin' to all that!"

Pearl slept the heavy sleep of healthy childhood and woke in the gray dawn before anyone else in the household was stirring. She threw on some clothing and went down the ladder into the kitchen. She started the fire, secured the basin full of water and a piece of yellow soap and came back to her room for her "oliver."

"I can't lave it all to the Lord to do," she said, as she rubbed the soap on her little wash-rag. "It doesn't do to impose on good nature."

When Tom, the only son of the Motherwells, came down to light the fire, he found Pearl sitting on the tabs, the kitchen swept and the kettle boiling.

Pearl looked at him with her friendly Irish smile, which he returned awkwardly.

He was a tall, stoop-shouldered, rather good-looking lad of twenty. He had heavy gray eyes, and a drooping mouth.

Tom had gone to school a few winters when there was not much doing, but his father thought it was a great deal better for a boy to learn to handle horses and "apple wheel," and run a binder, than to "learn" and "pack of nonsense they got in school nowadays," and when the pretty little teacher, and the eastern township came to Southfork school, Mrs. Motherwell knew at once that Tom would learn no good from her—she was such a flighty looking thing! Flowers on the under side of her hair!

So poor Tom grew up a clod of the valley. Yet Mrs. Motherwell would sell you, "Our Tom'll be the richest man in these parts. He'll get every cent we have and all the land, too; and I guess there won't be many that can afford to turn up their noses at our Tom. And, mind ye, Tom can't hold a horse as well as the next one, and he's a boy that won't waste no 'in', not like some we know. Look at them Slaters now! Fred and George have been off to college two years, and they're as good as dead. Young Peter is going to the Agricultural College in Guelph this winter, and the old man will hire a man to take care of the stock, and him with three boys of his own. Just as a boy learns about farmin' at a college and the way them girls dress, and the old lady, too, and her not able to speak above a whisper, and a boy wears an ostrich feather in his cap, and they're a terrible costly thing, I hear. Mind you they only keep six cows, and they send every drop they don't use to the creamery. Everybody can do it, and I suppose, but I know they'll go to the wall, and they deserve it, too!"

And yet!

She and Mrs. Slater had been girls together and sat in school with arms entwined and wove romances of the future, rosy-hued and golden. When they consulted the oracle of "Tinker Taylor, soldier, sailor, and a poor man, beggar man, thief," the butchers on her gray winsey dress had declared in favor of the "rich man." Then she had dreamed dreams of silks and satins and prancing steeds and a liveried servants, and ease, and happiness—dreams which God in His mercy had let her forget long, long ago.

When she had become the mistress of the big stone house, she struggled hard against her husband's penurious ways, defiantly sometimes, and sometimes tearfully. But he had held her

down with a heavy hand of unyielding determination. At last she grew weary of struggling, and settled down in sullen submission, a hopeless, heavy-eyed, spiritless woman, and as time went by she became a greeder for money than her husband.

"Good-morning," Pearl said brightly.

"Are you Mr. Tom Motherwell?"

"That's what," Tom replied. "One; you needn't mind the handle."

Pearl laughed.

"All right," she said. "I want a little favor done. Will you open the window upstairs for me?"

"Why?" Tom asked, staring at her. "To let in good air. It's awful close up there, and I'm afraid I'll get the fever or something bad."

"Polly got it," Tom said. "Maybe that is why Polly got it. She's a awful sick now. Ma says she'll like as not die. But I don't believe ma will let me open it."

"Where is Polly?" Pearl asked eagerly. She had forgotten her own worries. "Who is Polly? Did she live here?"

"She's in the hospital now in Brandon," Tom said in answer to her rapid questions. "She planted them poppies out there, but she never seen the flowers on them. Ma wanted me to cut them down, but Polly used to put off so much time with them, but I didn't want to. Ma was mad, too, you bet," he said, with a reminiscent smile at his own foolishness.

Pearl was thinking—she could see the poppies through the window, bright and glowing in the morning light. They rocked in the wind, and a shower of crimson petals fell. Poor Polly! she hadn't seen them.

"What's Polly's other name?" she asked quickly.

"Polly Bagg," he answered. "She was awful nice, Polly was, and jolly, too. Ma thought she was lazy. She used to cry a lot and wish she could go home; but my! she could sing fine."

Pearl went on with her work with a pre-occupied air.

"Tom, can you take a parcel for me to town to-day?"

(Continued next week.)

The Upward Look

Obstacles to Prayer

For the eyes of the Lord are over the righteous and his ears are open unto their prayers; but the face of the Lord is against them that do evil.—1 Peter 3: 12.

Christians who are right with God find great joy in prayer. If our prayers do not bring us the peace we desire, if we feel that they are not being answered then we should search our hearts to find if there is any hindrance that is coming between us and God. Not until we have removed everything out of our lives that is likely to be displeasing to God need we expect that God will pay any attention to our prayers. We must first "get right with God."

God has commanded us to love our enemies. If there is anyone against whom we hold feeling of ill-will we may rest assured that God will forgive and listen to us only as we forgive and are willing to help those whom we dislike. This may be a hard thing to do but God requires it of us. If we value wealth, fine homes, good looks, our children or other dear ones more than we do God's approval, then we have idols in our heart. We need not expect God to listen to our prayers as long as we give Him only second places in our heart.

God will not heed our petitions unless our first and chief desire is to please Him in everything that we do. We must not only remove all idols from our life but we must,

also, endeavor to do those things which God has told us to do. We must do those things that are pleasing in His sight.

There are many things, which, if we are not careful, will creep into our lives and prevent us from obtaining the gift of God's holy spirit, without which we are powerless to live as we should. Whenever we find our prayers ineffective we should not conclude that God does not permit the answer to our petitions. We should humble ourselves before God and should pray to Him in the words of the Psalmist: "Search me, O God, and know my heart; try me, O God, and know my thoughts, and see if there are any wicked way in me." (Psalms 139: 23, 24). We should wait before God until He has shown us whatever is displeasing in His sight and then we should thank the host to remove it, counting not the cost.—L.H.N.

The Fireside Cooker

Janet M. Hill

The quality of food is, in large measure, determined by the proper management of the heat used in its cooking.

Often, when we come into our own houses or go into the houses of our friends, we are made aware by the odors that permeate the atmosphere that chicken, fish, or possibly onions are to be served at the coming meal. These odors may not always be objectionable, especially if we bring a good appetite with us, yet these same odors, clinging to draperies, etc., become stale and prove to be anything else than wholesome or agreeable. But this is only one item of the matter to be considered.

Did it ever occur to you that the dish to be served is thus much poorer in quality, because of this loss of extraneous which it has incurred? Let these volatile odors and flavors which are dissipated throughout the house, and how can they be brought back again to the soup kettle or the roast? We are wont to eat too much food that has lost much of its nutritive properties through injudicious cooking. And, besides, this loss occurs most largely in meats, fish and the more expensive kinds of food. Have you ever noted the gray, solid particles upon the inner surface of the cover of the kettle in which meat has been cooked in a furnace-boiling water? These coagulated juices represent quite a portion of the nutriment and extractiveness for which we have paid our money. This valuable material goes

out in the dialpan and the flavorless muscle is sent to the table.

The temperature to which food is subjected in cooking gives the keynote to the efficiency of the cook. The flavor secured in the exterior of meats, browned in a hot oven, cannot be improved upon, but after the initial searing, to keep in the juices, has been secured by this browning process, the tenderest, juiciest and best-flavored meats are those in which the temperature of cooking of the joint does not rise above 130 degrees Fahr. for beef, mutton and game, nor above 160 degrees Fahr. for poultry and veal. So, too, in cooking meats in water by the process termed boiling, after the initial searing has been accomplished, either in the frying pan, the oven, or boiling water, the continued boiling of the surrounding water indicates a temperature too high for the best results. At the same time to keep the water in a vessel, exposed to currents of cold air and the changeable heat of an ordinary cooking range, at just the right temperature is a rather nice procedure, and calls for constant care and attention.

Right here is the point where the fireside cooker may be used to advantage and prove a new-spring source of comfort and delight. Let the article be subjected to the requisite degree of heat, first searing it over in the oven or frying pan when this is called for, then transferring to the fireside cooker and cover closely at once, and after a sufficient interval of time, without further thought or care, the dish will be found to be cooked most thoroughly and satisfactorily.

Another feature of the cooker, which eliminates attendance in the kitchen, is the fact that the dessert, if it be in the form of custard, cabinet or bread pudding, rhubarb or blueberry betty, or similar dishes, may be set into the cooker, at the same time as the other viands, and left, without injury, until all that is left to be desirable to embellish the dessert with a meringue, this may be added on the removal of the dish from the cooker, when the delicate coloring required may be secured in the oven.

HOW THE COOKER WORKS.

In a fireside cooker the cooking is done by retained heat; if the enclosed heat be let out, cooking soon ceases. With a stove to generate the heat and a fireside cooker to retain it, the hours spent over a hot stove in a hot kitchen may be cut down to the minimum and the summer season be thus made an occasion for enjoyment for all members of a family.

Fireside cookers give good results with such dishes as are cooked in boiling water; as, ham, leg of lamb, corned beef, steaks of all kinds, fricasses, curries, etc., soups, custards and all puddings cooked custard fashion. Probably no fireside cooker will turn out Boston baked beans as satisfactory as are those that have been baked in a well-regulated oven; but in some cookers the flavor of the well-browned exterior of a roast which has been obtained in the preliminary cooking in the oven, is retained during the long process in the fireside cooker.

The length of time to be given to the preliminary cooking of a dish, in preparation for the fireside cooker, varies with the article to be cooked, and much depends on its size. Before consigning food of any kind to the fireside cooker, the temperature at the very center of the article must be raised to the proper cooking point for this specific article, then the cooker will conserve this heat until the cooking is completed. Soups, stews, etc., must be at the boiling point when removed from the source of original heat.

Just as the fireside cooker conserves heat, so will it conserve cold. For instance, quantity of well-frozen ice cream, closely packed in ice, may be kept for hours without even the melting of the surrounding ice. No salt should be used. If the ice has not been made fine enough to pack closely, bits of newspaper may be used to fill the vacant spaces.

No heat is generated in or about the fireside cooker. It is simply a conservator of the heat that is enclosed in the article to be cooked, as it is set into the cooker. The principle on which the cooker is constructed is identical with that of the thermos bottle now coming into such common use. Both are designed to keep hot things hot, and cold things cold. The cooking process involved is that highly approved method of slow, long-continued cooking which, in many cases, produces the most delicate and acceptable dishes. As a thing of convenience, on many an occasion, nothing can take the place of the cooker; for it provides the means of presenting, at evening or in the morning, the main dishes of a meal that have called for no thought or care during the ten or twelve preceding hours. The fireside cooker, the direct descendant of the old-time hay box, is an article of real and practical utility, and well worthy of a place in any kitchen.

Renew Your Subscription Now.

Throw away the old washboard!

How about that heavy family washing that has to be done each week? It seems incredible, but there are still some people who continue to use the old back-breaking washboard method, which makes common drudges of Mother, Wife and Sister (which results in irritable, nervous, over-worked women). Our

"New Century" Washing Machine

washes a tubful of clothes in five minutes. Powerful oil tempered steel spiral springs and tool steel ball bearings make the work so easy that a child of six or eight can do it.

The new Wright Stand is strong and rigid, and drains the water right into the tub. Ask anyone of the army of satisfied users about it, or just still try one; they will be a better argument than we can put on paper.

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THE COOK'S CORNER

Send in your favorite recipes for publication in this column. Inquiries will be replied to, as soon as possible after receipt of same. Our Cook Book is sold free for two new year subscriptions at \$1.00 each. Address, Household Editor, Peterboro, N.H.

ONION GRAVY

Slice a medium-sized onion very fine, and cook in 1 tablespoon butter, taking care not to burn. When the onions are a golden brown add sufficient milk to make the quantity of gravy desired, and let this boil up. Then add slowly 1 heaping tablespoon flour, dissolved in a little milk, stirring all the while, so it will not get lumpy. Season with salt and pepper, and if desired, add 1 well-beaten egg.

TOMATO SOUP

One even tablespoonful of butter, melted, not browned, mixed with 4 heaping tablespoonful of flour. Put tomatoes with twice as much water as there are tomatoes and cook for twenty minutes. Strain in a season with salt and pepper and a pinch of soda. Stir together, turning tomatoes into the flour and butter gradually, and add one cupful of hot milk just before serving.

BROWN SUGAR COOKIES.

Two cupfuls of light brown sugar, one cupful of melted butter or part lard, 3 eggs, ½ cupful cold water, one teaspoonful soda, 2 teaspoonfuls baking powder in flour. Set on the ice for ten minutes. Handle as lightly as you would biscuit dough.

Want to be strong?

Eat more Quaker Oats. Eat it for breakfast every day. This advice is coming from all sides as a result of recent experiments on foods to determine which are the best for strength and endurance. It has been proved that eaters of Quaker Oats and such cereals are far superior in strength and endurance to those who rely upon the usual diet of heavy, greasy foods.

When all is said and done on the cereal food question, the fact remains that for economy and for results in health and strength, Quaker Oats stands first of all. It is the most popular food in the world among the foods sold in packages. It's worth a trip to Peterborough to see these great mills.

Put up in two sizes, the regular package and the large family size, which is more convenient for those who do not live in town. The large package contains a piece of handsome china for the table.

A NEW PREMIUM CATALOGUE

We have just issued a new premium catalogue that will interest more than 100 splendid premiums are listed in this catalogue. It is illustrated, and full descriptions are given of the various premiums. Write for a copy. You will be surprised when you see the splendid articles we are giving away. Send us a postal card, and the catalogue will be sent you by return mail. Full instructions are given as to how to secure these premiums. There are some articles listed in this catalogue that you want. Ad dress:

Circulation Department,
FARM AND DAIRY
PETERBORO, ONT.

BOILED DRESSING

Mix together ½ tablespoon sugar, 1 teaspoonful mustard, 1½ tablespoon sugar, ½ tablespoon flour, and a few grains cayenne pepper. Add the yolks of two eggs slightly beaten, 1½ tablespoons melted butter, ¾ cup milk, and lastly and very slowly, ¼ cup vinegar. Cook in a double boiler until mixture thickens.

CHEESE AND RICE

Boil enough rice to nearly fill a baking dish—be careful to have it white and fluffy—fill the dish, then cover the top about an inch thick with grated cheese, dot over generously with butter, add half a cupful of cream and place in the oven about five minutes before serving.

BEEF LOAF.

Three pounds of chopped uncooked beef, three or four slices of bread, broken fine and moistened with hot water, three well beaten eggs, add salt, pepper, celery salt, and butter the size of an egg. When well mixed, butter a bread pan and pour just a little hot water over and bake about an hour. This will make a loaf large enough to serve eight persons.

PORK AND GREENS

Carefully pick over, wash and drain dandelion greens, and add just a little bit of horseradish top. Cook until tender in boiling water. Into the frying pan put 3 or 4 tablespoonfuls of vinegar and add 1 cup each of pork drippings and water (half and half), and turnips, which are the best, boiled greens. Serve with slice of hot, boiled eggs and browned slice of pork.

SCOTCH SAUER.

This is a way of making a delicious foreign invention. Make a soft dough, just stiff enough to roll out, of two cupfuls of butter, two tablespoonfuls of sugar, two tablespoonfuls of flour, and two cupfuls of raisins, one teaspoonful of salt and four cupfuls of flour sifted with two teaspoonfuls of baking powder. Just before putting in the flour add the yolks of two eggs to make the sauce light and yellow. Roll these out half an inch thick, cut with small round biscuit cutter, bake on a griddle and serve hot with sweetened tea.

OUR HOME CLUB

THE BOY'S ALLOWANCE

That's right, "Son," I'm glad to see you come out and assert your rights, and not go on working year after year for your board and clothing, not knowing that you will ever get anything more. When you see fit to marry, you have to pay for your wedding suit out of the first home. Father then considers there is plenty of help on the farm without you, although you took the lead in the work before. Maybe all fathers are not like this one mentioned, but there are such as give them. I wonder the boys leave the farm? I let you hear from the boys and fathers too.—"Aunt Sue."

THE HOUSEWIFE'S ALLOWANCE

I felt like cheering when I read "The Pastor's Wife's" opinion on the wife's allowance. I heartily agree with her that all the happiness in the world cannot buy the happiness found in some of our country homes. Neither is it the pleasant feeling in the world to feel your great need of something for the home, but see the means to get it if you could only get your fingers on the "wad." Some women, and I believe the majority of them, spoil their husbands right on the start. They imagine they do not require much to begin house-keeping with and before they are aware of it they are taking just what their husbands can give them. If they don't feel like giving them

anything they will grin and bear it and say nothing. It is very hard to know just where to draw the line, as different positions require different means, but any good manager will not spend any more than is necessary. Let a husband just think for one moment what it would cost him to put a domestic servant or housekeeper in his wife's place merely to manage him and look after the children, and I will venture to say if he will pay his wife one-half what he has to pay the housekeeper, she will think she can soon have a bank account.—"Aunt Jane."

The Red Ant

It is a well known fact that small red ants, that sometimes become great pests in houses, may be kept from tables, pantry shelves and other places where food is kept, by washing those parts of the surfaces over which they must pass to reach the food places with a saturated solution of corrosive sublimate. Care must be taken in using the solution, as it is a deadly poison. Keep bottles away from children's search, and have properly labelled with a conspicuous label. A water solution is as good as an alcoholic solution for this purpose. They may be kept from their haunts, for example, by simply coating a narrow ring on each table leg with the solution. It is generally not necessary to renew the application often—than once in two or three months.

Support for Vines

Last year I tried a new support for flowering vines which proved most satisfactory. I took two light sticks long enough to reach across the end of the piazza and connected them with stout cords on which the vines might run. In the upper stick I fastened three corresponding hooks at the top of the piazza. Several times during the summer when we had furious storms which whip the tender vines so roughly, I unhooked the support and placed the vines flat on the piazza floor, securing the stick with a couple of stones.

In this way they escaped the worst of the storm and were quite fresh when I hooked them in place again. Our vines never before lived through the summer in such good condition. The first frosty nights the ground was covered with a blanket so that our blossoms remained quiet late, and when at last they became frost bitten it was very simple to remove both the vines and strings or wires.—Jessie Burns, Halton Co., Ont.

The Quaker Oats Company is advertising Quaker Oats griddle cakes. They say that these cakes are the most popular dish served in their New York cereal restaurant. Children especially should delight in Quaker Oats griddle cakes; the kind that you can't eat too much of.

PATTERNS FREE

YOUR CHOICE OF ANY 3 PATTERNS illustrated in Farm and Dairy, ABSOLUTELY FREE, in return for one new yearly subscription at \$1 a year.

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Peterboro, Ont.

The Sewing Room

Patterns 10 each. Order by number and size if for children, give age; for adults, give measurements. Address all orders to the Pattern Department.

CHILD'S TUCKED DRESS 6364



The dress consists of the long blouse and the skirt. The blouse is tucked in groups and the skirt is finished with a hem and three tucks above. The two are gathered and joined by means of a straight belt.

Material required for the medium size (4 yrs) is 2½ yds 34, 2½ yds 32 or 2½ yds 30 in wide with 1½ yds of edging. The pattern 6364 is cut for girls of 2, 4 and 6 yrs of age, and will be mailed to any address on receipt of 10 cts.

GIRL'S SAILOR JUMPER SUIT 6374



The skirt is straight and can be either plaited or corded at its upper edge, where it can be joined to the collar, lining or to a belt. The blouse is made with a front and back portions. It is faced at the front and the collar is gathered at the neck edge. The sleeves are simple, plain and finished with finishing their lower edges.

Material required for the medium size (12 yrs) is 6½ yds 27, 4 yds 32, or 3½ yds 44 in wide with 2½ yds of banding. The pattern 6374 is cut in sizes for girls of 6, 10, 12 and 14 yrs of age and will be mailed to any address by the Fashion Dept. of this paper on receipt of 10 cts.

ROUND YOKE NEGLIGEE 6385



The negligee is made with fronts and back, which are gathered and joined to the yoke. The edges of the shirting are held together by ribbon ties or tacked one to the other as liked. The long sleeves are plain and cut in one piece each.

Material required for the medium size is 3½ yds 34, 3 yds 32 or 2½ yds 44 in wide. The pattern 6385 is cut for a 34, 36, 38 and 42 in bust measure, the embroidery pattern 455, one size cut, will be mailed to any address on receipt of 10 cts.

FANCY DRAPED WAIST 6386



Pretty snug fitting bolero-like waists are much worn at the present time and are given a new treatment so varied as to make their possibilities almost limitless. This waist shows a simple garment of this sort and is prettily and effectively draped.

Material required for the medium size is 1½ yds 21 or 24, ¾ yd 32 or ¾ yd 34 in wide for the draped portion of the blouse and sleeves; 1½ yds 21 or 24, ¾ yd 32, ¾ yd 34 in wide for the bolero 1½ yds 44 in wide for the yoke, sleeves and trim, ½ yd of satin for the bands. The pattern is cut for a 32, 34, 36, 38 and 40 in bust and will be mailed on receipt of 10 cts.

OUR FARMERS' CLUB
Contributions Invited.

QUEBEC

RICHMOND CO., QUE.

DANVILLE—We are having very fine warm weather and plenty of rain; hay and grain crops are growing rapidly, all seeding is done with the exception of turkeys and sowing. The majority will finish this result is an increased flow of milk, and the cheese and butter factories are kept busy and prices are good. Butter 25c a lb. The corn crop is doing fine and farmers are looking forward to harvesting a well. There are plenty of young farms throughout the country and all seem to be doing well. Gardens are in fine growing condition.—J. M.

ONTARIO

HASTINGS CO., ONT.

TURRIFF—Fine weather prevails once more. Crops were beginning to suffer but have recovered a good deal. Not many potatoes were planted, seed being so hard to get. We have need of institute speakers here. They would have a good audience, yet they are not being billed to do so. A good deal of corn was planted this spring. Too much feed, seed and provisions were imported this year, and thus too much money finished. The hay crop will be light. Grain is looking well.—W. R. W.

SIDNEY—Crops are looking very healthy but late. Timothy meadows are a failure, very short up to this. Nearly all are looking very good but the meadows that have been cut one or two times were killed by ice, and those left are very spotted. There is an abundance of fruit, cherries, peaches, berries and hawthorn. All other varieties shown fine. Honey promises to be a very good crop although swarming is late but very healthy and prolific. Honey has; mixed, 85; oats, 60c. Timothy hay, 75c a bush; corn, 80c a bush; peas, 90c a bush; beans, 80c a bush; fresh eggs, 25c a doz; butter, 25c to 25 1/2; fresh eggs, 20c, 1c a bag; cows, 84c to 85; hogs, 87-88; chickens, 50c to \$1 a pair.

MIDDLESEX CO., ONT.

LAMBETH—The first hay that the writer has seen this year was made north of this place, and at this time (June 26) the prospects seem good for an average yield. Many fields of barley were out in head and look fine. Fall wheat is also good and some fields will show a big output when the threshers go their rounds. Cherries are fast ripening. Some have cut their trees with a thin lace covering to prevent the birds from being too helpful. Lambeth has a big gravel pit, which is now being worked to the utmost for road repairs, and all kinds of concrete work, such as silos, bridges, and building houses and barns. The corn, and potatoes are growing fast from the heat of the last few days.—K. O.

BYRON—Farmers are optimistic at the splendid prospects of an abundant harvest. Today (June 27th) is a busy day and a visitor could see plainly that the currying fingers of the young pickers were an evidence of great crop. From 500 to 1200 boxes were taken to the Locomotive this morning by different growers, while the pickers were averaging 100 boxes each a day. Corn is now coming on nicely, some having attained a height of two feet. Tomatoes and potatoes are growing to the satisfaction of every person. The heavier farm products, like hay and grain are O.K.—J. E. O.

ONTARIO CO., ONT.

TANTON—Everything is looking fine, although a good deal of seed has been sown, owing to the late spring and recent dry weather. Grain crops are a good color but do not indicate overabundance of straw. Old grain is scarce. High prices for hay that remained after seed year, than a year ago and the number of new silos are being constructed to accommodate the expected crop next fall.—S. A. N.

NORTHUMBERLAND CO., ONT.

WICKLOW—Crops generally are looking unusually good, especially the early sown grain. Peas are progressing very fast. Hay is not so good as last season. Apple

trees have not bloomed as heavily as last season; blows that have come seem very large and thrifty. Pastures keep very good.—E. R. H.

WELLSBORO TH CO., ONT.

KERK WALL—The warm weather of the past few weeks has caused very rapid growth. Fall wheat is looking well and the straw is the average in some places hardly as large as past year. The acreage is large and the average is good. Spring weather is doing well, and if the warm weather continues for some time and with the average is very small. Roots and corn are all planted about the greater part has come up and is growing splendidly. Pigs and cattle are fattening very quickly on grass. There is a good demand for all kinds of produce and prices are high. Wheat is \$1.25 a bush; buckwheat, 85c to \$1.10 a bush; oats, 60c to 65c a bush; but there is very little grain of any kind to sell. Hops are in the neighborhood of \$7.55 a cwt. Haying has commenced but will not be general for about two weeks.—C. A. W.

THUNDER BAY DISTRICT, ONT.

SLATE RIVER VALLEY—The valley is simply parched for rain. The hay crop, which should be harvested in a couple of weeks at the rate of 15 from 3 to 10 inches high only. We have had only one good rain and that last March, since July 1908. The drought will mean death to lots of the poor who are struggling for existence, for their hay crop is their support. Such a season has never been known here before.—M. E. N.

ESSEX CO., ONT.

ARNER—The hot dry weather of the last few days has made a decided change fast; even the late planting looking thrifty, and in some cases is overtopping but is not growing much for lack of moisture. Haying is in full swing and the first hay was cut about June 29th, and in some cases the yield is heavy. What is many days before it will be harvested. Dates are hanging out and promise to be very good crop, excepting the low land, where they were water slain in the past. The strawberry season has just ended; they were very plentiful and cheap. A. L.

BRITISH COLUMBIA

COMOX-ATLIN CO., B. C.

COMOX—The rain has had greatly benefited hay and root crops. We have generally moist weather the hay crop will be fairly good. Corn cultivation is now general through the valley and the prospects are favorable. Dairymen are erecting silos, being convinced that ensilage is a cheaper food for livestock. The demand for pork is brisk, 50 a lb. live retailing at 35c a lb.—P. A.

SPECIAL JUNE CROP BULLETIN

Owing to the unusually wet, cold and generally backward spring, vegetation was greatly checked, and in many localities but little sowing or planting had been done when the schedule for the May bulletin was sent to correspondents. It is deemed advisable to ask for further information, and to ask for a statement of conditions on or about the 22nd of June.

THE WEATHER—April was an unusually wet and cold month, and early sowing was hindered. The first half of May was also unfavorable for many crops and as a consequence spring sowing was very slow at the end of that month. However, followed by warm weather, and the spring rains along with a bound and spring crops are fast approaching normal conditions.

FALL WHEAT—As correspondents wrote, a week or ten days later than usual. While some correspondents speak of the likelihood of a larger yield, fully as many describe the fields as being thin or sparsely on low-lying or undrained soil or sparsely on a larger acreage being given to peas. The crop looks promising and less is said about the "bug" or weevil than for years. The patchy spots were re-sown with barley planted more largely than in any year in history every part of the province, many as an emergency crop, owing to some cereals being crowded out by the lateness of the spring.

GOLDEN—Ontario farmers appear to be depending more upon corn than formerly.

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

\$7.75 a Cwt.

FOR HOGS WEIGHING 150 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED

PETERBOROUGH, HULL, BRANTFORD

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The Peterborough Cereal Co having had their mill rebuilt and refitted with all the most modern machinery, are prepared to handle every description of grain in any quantity. All kinds of mill feeds on sale. Highest market prices paid for all grains. Chopping, etc. done for farmers at lowest rates.

Try Our Five Thistles and Mikado Flour

Peterborough Cereal Co., Peterborough

The present outlook for the crop is more favorable than that reported a month ago. New meadows have done much better than old ones, and clover is reported to be relatively ahead of timothy. There has been practically no complaint of the midge. The poorest counties concerning hay come from the northern part of the province, and fully a week later than usual. Reports regarding alfalfa are practically unanimous as to the vigorous growth of that crop.

SPRING GRAINS—The bulk of these crops have been sown a week or two later than ordinarily; in fact some oats and first of June, and corn was being planted at the end of June. The reports point out that the spring conditions of 1909 were somewhat similar so far as lateness is concerned, and that very fair yields were still to be expected. Where spring wheat, barley or oats failed to catch, or were not native; Buckwheat, millet, corn, rape, sorghum to summer fallow.

SPRING WHEAT—There has been a further decline in the acreage of this crop, and where grown is looking well, considering late sowing.

BARLEY—About the average area has been given to barley. It had a late start in the spring, and the prospects of a good yield should favorable weather continue.

OATS—Some correspondents claim a decreased acreage for oats, while others hold that it has been increased. A good average is the probable area. Though late, the crop looks well as a whole, although rather thin in places.

PEAS—The lateness of the season prevented the sowing of some cereals, and led to a larger acreage being given to peas. The crop looks promising and less is said about the "bug" or weevil than for years.

BUCKWHEAT—This year has been planted more largely than in any year in history every part of the province, many as an emergency crop, owing to some cereals being crowded out by the lateness of the spring.

GOLDEN—Ontario farmers appear to be depending more upon corn than formerly.

This area has been considerably enlarged this year, and the only drawback to the situation is the lateness of planting; in fact some were put in in the third week of June. What was up when correspondents wrote looked well, although even then some complaints were made of the grub.

BEANS—Like other field crops, beans have been planted late. They have come up nicely, however, and were looking well when correspondents reported.

TORACCO—Owing to the land being so wet, tobacco was not planted until a week or two later than usual. The plants were rather small when returns were made, being attacked by many diseases.

POTATOES—Very few early potatoes were got in, but late planting had been vigorously pushed, and in a number of counties the acreage will be greater than last year. The season being a week or two later than usual the vines were not of average size when returns were made, but the outlook generally was favorable, although the bug was beginning to appear in large numbers.

ROOTS—Roots were sown on the late side and were only showing up when correspondents wrote. Turnips were promising well although many fields had been purposely held back in order to secure a second crop. Mangolds were not doing so well, and some early varieties will be scarce, but returns with turnips. Where grown sugar beets were looking well.

FRUIT—Blossoming was late but full, and there has been a more general setting of fruit than in ordinary years. Apples will likely turn out satisfactorily for although early varieties will be scarce, the more valuable winter varieties promise a large yield. Peas will be only fair. The latest reports regarding peaches put the fruit in a more promising position, although the trees have been attacked by curculionids, which are only to be a full crop, in some of the St. Lawrence and Ottawa counties. A number of trees are said to be "blasted." Cherries will yield an average yield, and small fruits generally will do well unless drought sets in early.

MARKET REVIEW AND FORECAST

Toronto Monday, July 5th, 1909 - The general improvement in crop conditions the past couple of weeks has created a better feeling in trade circles, and wholesale merchants are less scrupulous in filling orders not considered good and generally more business is doing. Jobbers in dry goods, tobacco and other goods are not increasing orders. In Ontario and Quebec the large market and high price of cheese is causing a considerable amount of considerable money in the country, and more buying is being done. The demand for money for commercial purposes continues good. Banks have advanced their rates a little on call money to 4 1/2 to 5 per cent. Mercantile paper is discounted at from 7 to 7 per cent.

WHEAT

A feature in the wheat situation the past week has been the better export demand, enough at the rate of 100,000 bushels. The pool market was not so strong. Export transactions were put through at \$1.21 f.o.b. New York, and for end of August equivalent to \$1.21 f.o.b. and for early September at \$1.20 f.o.b. These transactions have strengthened the hands of holders as it was expected that the wheat market would be that could be expected in the early future. The source of strength in the European situation was the large increase in shipments from the Argentine, India, on the other hand, has largely increased her exports of wheat as compared with last year, and this has created an easier feeling in Liverpool cables at the end of the week. New fall wheat in the southwestern states continuing to be made and the weather conditions. Farmers are rushing their wheat to market as soon as ready and many have sold for future contracts. Connecting reports come as to how the crop is yielding. The estimates for the Kansas crop, which is one of the pivotal states in the wheat area of the Southwest, vary from 6,000,000 to 10,000,000 bushels. A conservative estimate is about 7,000,000 bushels, or about the same as last year. Better crop reports affected the Chicago market at the end of the week, and prices declined to \$1.48 for July and \$1.47 for August. At Winnipeg on Friday there was a drop of 1/2c on October option though July wheat held firm. Quotations there are \$1.37 for July and \$1.09 for September. Locally the market is not as high as a week ago. Dealers are only quoting \$1.33 to \$1.32, and Ontario wheat is not so high. In some districts of yielding fairly well. In some the crop is better than it has been for some years and it conditions continue favorable a good average yield for the province is expected. Millers who have more wheat than they require are beginning to sell freely at an easier feeling prevails. On the Toronto farmers' market fall wheat sells at \$1.35 to \$1.38, and goose at \$1.20 to \$1.25 a bushel.

COARSE GRAINS

The oat market is not so strong though prices on the local market here show little change. Western oats are 1c lower. Dealers here quote Ontario oats at 27 1/2 to 28 1/2c on track Toronto and 53c to 55c out. On Toronto farmers' market oats sell at 60c to 61c; barley at 53c to 56c, and peas at 55c to 61c a bushel. Prices for barley and peas are largely nominal, as there is little doing in those grains.

FEEDS

Mill feeds show little change in price though the market is easier owing to the falling off in demand. There is very little Ontario bran offering. Shorts are more

plentiful but the demand is slow. Dealers here quote Manitoba shorts at \$3.20 and shorts at \$3.24 to \$3.25; and Ontario bran at \$25 and shorts at \$25 in car lots on track. Dealers here quote now as if we would have cheaper corn the coming winter. Reports from the Western States regarding the coming crop are very favorable. In Kansas the coming crop will be the largest in its history. The market is, however, not yet affected and quotations are little changed. Canadian corn is quoted here at 81c to 81 1/2c and Canadian at 75c to 76c a bushel in car lots. Toronto freight.

HAY AND STRAW

As haying approaches conflicting reports appear as to the crop. In some places it is said to be excellent, in others less than an average crop. As a rule, old meadows will not yield very well. New meadows, and especially clover, will give a large return. A good average crop is therefore looked for. In the meantime the market rules strong under a good local and export demand. Montreal prices show no change in prices from the week ago. Hay is quoted here at \$12 to \$12.50 for No 1 timothy; \$8.50 to \$9 a ton for inferior. Dealers here quote Ontario hay in car lots on track Toronto. On Toronto farmers' market considerable hay continues to arrive and the market was a little quieter in prices from the week ago. Timothy sells at \$12 to \$14; mixed at \$10 to \$11; straw in bundles at \$11 to \$12; and loose straw at \$10 to \$11.

POTATOES AND BEANS

There is little change in the potato market. New American potatoes are on the market quoted at \$3.50 to \$3.75 a bin, and the market for the old stock is quiet. Ontario are quoted here at \$2.50 a bag in car lots. On Toronto farmers' market old potatoes sell at \$3.10 to \$3.15 a bag.

The bean market is firmer owing to scarce supply. Dealer here quote Ontario at \$2.25 to \$2.30 and hand picked at \$2.40 to \$2.50 a bushel.

EGGS AND POULTRY

Egg receipts show considerable falling off and the market is firmer. The warm weather has interfered with the quality and dealers have to be more careful in selecting. Dealers last week were quoting 16c west and 16 1/2c east of Toronto for eggs at f.o.b. points. Prince Edward Island eggs are offering in Montreal at 17 1/2c to 18 1/2c a dozen. Quotations here rule at 19c in case lots. Dealers here report market firm with receipts diminishing and eggs are firmer in case lots. On Toronto farmers' market eggs sell at 34c to 35c a dozen; chickens dressed at 30c to 40c; young fowl at 15c to 15 1/2c; spring ducks at 20c to 25c; old fowl at 11c to 12c, and turkeys at 12c to 14c a lb.

FRUIT

Strawberry receipts at the end of the week were light and prices were higher under a good demand. On Toronto fruit market they sold at 6c to 7c a box for the general run and 7 1/2c to 8c for select crates. Canadian cherries are quoted at \$1 to \$1.25 a bushel.

DAIRY PRODUCTS

The cheese market does not look so strong though quotations for the local cheese boards during the week show little change. A fair enquiry over the cable reports that Montreal bids are at 10c to 11c below what exporters can sell at and make a profit. Western cheese is quoted there at 11 1/2c to 12c, and eastern at 11 1/2c to 11 3/4c. In the country it is at its flush. At the local boards at the end of the week quotations ranged from 11 1/2c to 11 3/4c, the bulk selling around 11 1/2c.

The butter market is weaker. An effort is being made it is said by exporters, though quotations for the local market can be done at a profit. So far this season very little butter has been exported, as the price has been too high for profitable business. Butter is quoted at Montreal at 22c to 22 1/2c for creamery. Though the general situation shows weaker indications, the Montreal market is firm. Local wholesale quotations are: Choice creamery prints, 25c to 24c; solids, 30c to 21c; choice dairy prints, 18c to 20c; ordinary, 16 1/2c to 17c; choice tubs, 12c to 13c a lb. On Toronto farmers' market choice dairy sells at 21c to 24c and ordinary at 18c to 19c a lb.

The wool market rules steady at quotations. Washed fleece is quoted at Mon-

trials at 25c to 25 1/2c and unwashed at 15c a lb. Dealers here quote prices in country at 20c to 22c for washed; 12c to 14c for unwashed, and 16c a lb for rejects. The number of farmers who sell their wool unwashed is increasing. The difference in price between washed and unwashed seems larger than the difference in quality should warrant.

HORSE MARKET

The horse trade keeps up well for this season of the year. Last week the Horse Exchange, West Toronto, had one of the best sales of the season. The quality of the offering was extra good and prices show an advance over a week ago. About 125 horses were sold during the week, a number of them going to distant points, both in and outside of Ontario. The outlook is good for this season of the year. Buyers report that it is difficult to buy horses in the country at prices that will enable them to do business at a profit on the market here. All want the top quotations on the market here, which, of course, it is impossible for the dealer to pay unless he loses money. Quotations at the Exchange last week ruled as follows: Heavy drafts, \$130 to \$200; general purpose, \$160 to \$195; express and wagon horses, \$140 to \$220; drivers, \$125 to \$175; spoolers, \$175 to \$230, and serviceably sound horses, \$130 to \$160 each.

LIVE STOCK

The live stock market last week showed some indications of the usual summer trade in price. However, on the whole, the trade was good all week. Since early in the year the cattle trade has been strong and steady, and the surprise is that the usual summer easeiness in the market has not come along sooner. During June 27, 404 cattle were handled at the city and West Toronto yards, and it is safe to say that not for many years back has June shown a better and steadier market. Prices

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W. F. YOUNG, P. O. B., 123 Temple St., Springfield, Mass.
FRANK LEE, Montreal, Canada, Sole Agent.

held steady all week at about former quotations. Stall-fed cattle are in demand and have sold all week at steady prices.


The export market is firmer and higher. London cables quote cattle firm at 14 1/2c to 15c for Canadian steers dressed weight. As the Union Stock Yards on Thursday there was a run of 1487 cattle, nearly all of which were exporters. The top price was \$5.50, the bulk of choice cattle selling at \$5.50 to \$6.40; medium, \$5.20 to \$5.65, and export bulls at \$4 to \$5.25 a cwt. At the city market on Thursday there was a light run owing to the holiday. The export market was strong as ever and had the quality been there prices would have been as high. What few exporters were offering sold at \$5.00 to \$6.25 and export bulls at \$4.75 to \$5.40 a cwt.

Butchers' cattle have ruled steady and sold at good prices during the week. On Thursday there was an easier feeling in this class of cattle, especially for grassers. There were no reports of butchers' selling up to 8c; the top price of the week was \$5.50 a cwt. Picked butchers' cattle sold on Thursday at \$5.25 to \$5.90; medium, \$4.75 to \$5.25; common, \$4.25 to \$4.50; choice butchers' cattle, \$4.54 to \$4.75; medium, \$3.50 to \$4; common, \$2.75 to \$3.25, and butchers' at a few of extra.

There was a moderate run of feeders

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and stockers during the week. Prices ruled about steady with choice quality higher. Average quotations are: Steers, 900 to 1000 lb each, \$4 to \$4.50; steers, 700 to 800 lb each, \$3.50 to \$3.75; stockers, 400 to 700 lb each, \$3 to \$3.50. cwt.

There was a fair trade in milkers and springers. On Thursday 40 to 50 were on sale at the city market. Some early milkers were present. Prices ranged from \$35 to \$55 each, one choice cow selling at \$62.

Under moderate receipts trade in veal calves ruled steady at \$3 to \$5 a cwt, with a few of extra quality selling at \$6.50 a cwt.

The sheep and lamb market is lower than a week ago. There was a large run early in the week and prices took a drop. On Thursday export ewes sold at \$3.50 to \$4; rams, \$2.50 to \$3, and spring lambs at \$7 to \$7.75 with a few selected at \$8 a cwt.

The hog market closed easier and lower prices are looked for. The English bacon market is easier and lower. Hogs, however, are so scarce in the country that competition among packers will help to keep up prices pretty well in any case. In the city market on Thursday selected bacon hogs fed and watered were quoted at \$8 and \$7.75 L.o.b. on cars at country

market. The Trade Bulletin's London cable of July 1st quotes bacon as follows: The market is quiet and easy with sales of Canadian aid is decline. Canadian bacon, 65 to 66c. Average sales 65 to 66c.

PETERBORO HOG MARKET Peterboro, July 5, 1909. - Dealers hope delivered on the English markets last week totalled 35,000. The demand for bacon in

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LUMBER FOR SALE-All kinds and sizes delivered on board cars at your nearest railway station. Farmers desiring to build this season can save money. Write for prices to William Eldridge, Herporth, Ont.

FOUNTAIN PENS, 14 K. GOLD-FREE IN return for one new yearly subscription to Farm and Dairy, Write Circulation Dept., Farm and Dairy, Peterboro, Ont.

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the Old Country was poor. The George Matthews Co. Ltd. quote the following prices for this week, f.o.b. country points: weight of cars, 84 cwt; delivered at abattoir, \$7.75 a cwt.

MONTRÉAL HOG MARKET

Montreal, Saturday, July 3rd.-The market for live hogs ranged at the firm price with quotations ranging up to \$5.75 a cwt. Selected lots weighed off cars, but prices eased off. Towards the end of the week with increased supplies and \$2.50 a cwt was the highest price obtainable. Dressed hogs at firm under a good demand and prices are unchanged at \$12.50 a cwt for fresh killed abattoir stock.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, July 3rd.-The demand for cheese for export improved towards the end of last week, and as a consequence prices in the country advanced under a good demand from the buyers, the most one half cent more money than those at the beginning of the week. The volume of demand was a decided improvement over that of the previous week, and will reach the shipments, which totalled almost 100,000 boxes for the week, and dealers were quick to take prices up again to the level, as the price current at the beginning of the week were showing a smart rise on the purchases of the week before. If this demand continues during the ensuing week, we should have firm markets, with full prices prevailing all over the country. Brooklyn and Cornwall registered the highest prices this week, the offerings at these two boards selling at 11 1/2c a lb. The market in Montreal was down to 11 1/2c a lb, the price in Quebec selling at 11 1/2c to 11 3/4c. The receipts for this week show a marked falling off from the total for last week, only 20,000 boxes having been received into Montreal during the past six days. The total is also away behind the quantity received during the corresponding week last year, and would indicate a falling off in make at a time when the market generally is looking for signs of an increase. It is worth noting that the future course of prices depends very much upon the state of the production in Canada, and any falling off in the production will have an especially marked effect in determining the true value of cheese.

The market for butter is firm, and prices are steady at the present time. At this week-end at the Montreal market in the Eastern Townships have recorded an advance in prices on those paid at the same price a week ago. At St. Hyacinthe on Saturday afternoon the entire offering was paid at 22 1/2c a lb, as compared with 22c a lb the ruling price a week ago. At St. Hyacinthe the market was quiet, and the advance of 1/2c a lb on the price paid last Saturday. There is no demand for export butter, and are put into the market as yet, and due to the operations of the local dealers, who seem to believe in butter at these prices, and are putting fairly large quantities away in cold storage every week. The market is still behind that of last year, although not to the same extent as indicated by the receipts last week, the total this week being barely 10 per cent. short.

AYRSHIRE NEWS

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

WILLOWDALE STOCK FARM

In this age when so many farmers in eastern Canada are disposing of their farms and migrating to the West, it is rather out of the ordinary to find a man, who has large interests in western Canada, and has spent many years travelling through the western States and Canada, purchasing a farm and settling down here. But such has been the case with J. M. M. Parker, proprietor of Willowdale Stock Farm, about five miles from the town of Lennoxville, Que., and within easy reach of the city of Sherbrooke, the prosperous city of the Eastern Townships. About two years ago Mr. Parker purchased his present property, comprising several hundred acres. His is one of the best stock farms in the province. The large wire fences have been erected on the farm put under a system of rotation. A carefully new house has been erected, containing all modern improvements. Mr. Parker has now in contemplation new

barns and stables, which will be built of steel and concrete.

Clydesdales on this farm are of the prime type, such as will be of good service in the surrounding country. "Glyre," imported by R. Ness, Howick, Que., is a strong horse of grand quality, and was got by Baron's Pride. He stood second in Montreal last year as a three year old. He also last January, stood first and "Indomitable," rising two years, and these being used in the community should, in a few years, improve the horse flesh very materially. The imported mares, "Madeline" and "Bobby McQueen," were well mated pair of good type and quality. The young mare, "Amulet," by Prince Sturdy, is about as near right as we get them. She was second in her class at the Ontario National Exhibition last fall. The young stallion also as well as the last two mentioned mares were imported by Mr. Ness.

The Short horns are principally of the dairy type, although we noticed a few that conformed pretty well to the beef type. These were selected mostly from the herd of the late H. M. Cochrane of Hillburst, Que.

MISCELLANEOUS

ABRAM BASTON, Appleton, Ont., Leicester sheep. Show ring and breeding stock for sale. 0-4-25-09.

WANTED-CHESTER WHITE SWINE. We wish to purchase some pure bred Chester White Pigs, six or eight weeks old. Will any breeder having same for sale write, giving prices, etc. to

FARM AND DAIRY, Peterboro, Ont.

PONIES-AYRSHIRES

FOR SALE-Twenty Canadian, Exmoor and Welsh Ponies, from 11 to 14 1/2 hands in height. Also Ayrshires of various ages and of both sexes, for prices right. Write or call on

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AYRSHIRES

AYRSHIRES, males only, two fall and one spring calf. Enquire what their ages are doing. James Beagr, St. Thomas. E-47

"La Bois de la Roches" Stock Farm

Here are kept the choicest strains of AYRSHIRES, imported and home bred. WHITE ORPINGTON, WYANDOTTES and BARRED ROCK Poultry.

HOR. L. F. FORGET, J. A. RIBEAU, Proprietors, Manager, E-5-26-10 St. Anne de Bellevue, Que.

SPRINGHILL AYRSHIRES

Imported and home bred stock of a ages for sale. See our catalog in the listing shows this fall. Write for price.

ROBT. HUNTER & SONS, Naxville, Ont. Long Distance Phone E-7-1-10

IMPORTED AYRSHIRES

Having just landed with 50 head of choice Ayrshires, mostly purchased at the great Aschleskie sale. Prepared to fill orders for head heading bulls, from the best of the dairy herds in Scotland; 12 fit for service to suit the interest of females of all ages. Cows with milk record up to 70 lbs per day. Write and let me know your wants. Long Distance Phone. E-5-25-09.

R. NEES, Howick, Que.

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OUT OF RECORD OF PERFORMANCE COWS

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GUS. LANGELEI, Cap Rouge, Que. 0-6-3-10

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High-Class Dairy Cows The richly bred bull, 15 months of age, Cherry Bank Surprise 26605, for sale. Also Baruchkie King's Queen 20725, Dam, Pansy 6th, of Carston (Imp.) 20726. Dan, P. S. MCARTHUR, North Georgetown, Que. Railway Station, Howick, Que. 0-6-23-10

A few Ayrshires are kept here also-the nucleus of a larger stock to be kept in the future. These were selected from the herd of the late John Jub, Eustis, and are nearly all imported. "Fulton Ruby" is a grand producer, as is also "Liby of Howden." "Duchess" is a fine prize "Annie of Howden," "Howden," and "Pair of Stee. Anne," both by Station which both with the qualifications which beset her with the quality of product of the dairy is sold in the town and of such a quality of butter; mand far exceeds the supply. This is product meets with a ready sale at a good price.

There is some rough and rocky land on Willowdale on which Mr. Parker pastures in the American Record. Mr. Parker hopes to encourage the farmers to again start in the sheep industry as there is much land suitable to the keeping of Chester White pigs in the Township. Imported ducks, and also a choice lot of poultry of the American breeds, and Pekin ducks, round out the other live stock department of our readers to pay a visit to Willowdale and inspect the high quality stock kept there.-W. F. S.

HOLSTEINS

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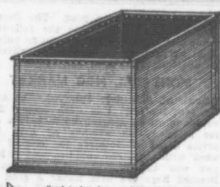
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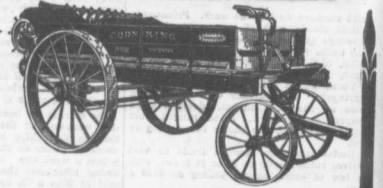
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