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FOR FARMERS and STOCKMEN

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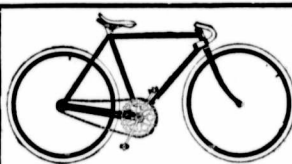
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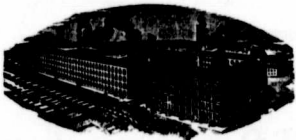
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The Farming World

For Farmers and Stockmen

Vol. XX.

JUNE 3rd, 1902.

No. 21

The Outlook

A TRIP through the country at this season of the year is always inspiring. It tends to make one very hopeful as to the outlook for agriculture, and as to the prospects for an abundant harvest. And yet it is early to come to any definite conclusion on this matter. The two or three months that will elapse before harvest arrives may bring disaster to the growing grain and stamp failure on the farmers' highest hopes. Still one should always look on the bright side, and there is more reason for doing so when conditions in a country back up one's inclinations in this respect.

The most cheering prospect, perhaps, which the country presents at the present time is the indication of an abundant fruit crop. It would seem as if every tree, good or bad, that can produce a blossom is doing so to the fullest extent of its powers. There is not a single tree in the orchards that we have seen during the past ten days, both east and north of this city, but is completely covered with blossoms. True, there are reports from the west of injury from frost, but on the whole, we are safe in stating that not for many years has there been brighter prospects for an abundant fruit crop than at the present time. The growing grain crops look well, and the meadows indicate an abundant hay yield.

But the farmer, in the older parts of the country at any rate, is not dependent solely upon his grain or fruit crops for the cash return from his farm. The hope of, perhaps, the larger number of our farmers today lies in the realm of live stock and dairying. The outlook so far as these are concerned is most encouraging. Prices for horses, cattle and swine still rule high, with good prospect of their being maintained for some time to come, especially for animals of the very best quality which, by the way, should be the only kind the farmer should aim to produce. Sheep and lambs are more than holding their own, though the wool product does not show any signs of advancing. In the dairy the season has opened up well, the prices for cheese being higher at the start than they have been for years. There was, however, a big drop last week, though this was not unexpected, as values at the beginning were much above a profitable export basis. The outlook for butter is good, and we look for a good season for the producer. Mr. H. B. Gurler, a well-known American dairy authority, predicts a short supply of milk in

the United States in the near future, when he expects June and July butter will sell from 23c. to 26c. per lb. High prices to the south of the line cannot but affect prices on this side. Then there are poultry and eggs. For those in this trade the outlook was never brighter. Eggs are high and likely to continue so, and the prospects for a big trade in poultry this fall are very bright.

Thus a brief canvass of the whole situation shows a pretty healthy state of affairs so far as the agricultural outlook is concerned. This, however, should in no way prevent the farmer from aiming to keep up the quality of every thing he produces. In live stock and dairying this is especially true, and nothing but the very finest quality will obtain the highest price. With the outlook bright and with every farmer aiming to make the most out of it by constantly improving the quality of the products he has for sale, his future prosperity is assured for some time to come.

Transporting Farm Products

The importance of the transportation question to this country was forcibly emphasized in a speech by Mr. A. F. MacLaren, M.P., shortly before the close of the recent session at Ottawa. Though Mr. MacLaren covered largely the same ground as in his address on this subject before the dairymen's convention at Woodstock last winter and which was published in full in *The Farming World* of January 28th last, he presented some further data that go to show that the producer of this country is very seriously hampered because of unfair discrimination in freight rates. Early in his address Mr. MacLaren put the question very strongly as follows:

"We have our farmers' institutes, our cheese and butter associations, our fat stock shows, our fruit, honey, poultry, swine and breeders' associations, our shows and exhibitions of all kinds, our agricultural colleges, &c., all of which are receiving assistance from the government, doing everything in their power to increase the quantity and improve the quality of our goods. But not a thing but talk, talk, talk, and no action as far as improving our freight rates is concerned. What is the use in spending money in improving the quality of our products, when we are taking no action whatever in trying to solve the transportation problem, which if we could do and place our goods on the markets of the world as cheaply as those of our neighbors to the

south of us, we would be receiving millions of dollars more for the producers and manufacturers of this country's goods than we are receiving to-day."

Dealing with last season's trade, Mr. MacLaren says:

"The exportable volume of our cheese, butter and bacon represented about \$40,000,000, upon which we have paid about \$1,000,000 more freight than we would have paid provided we had facilities for shipping similar to those of our cousins over the line. Furthermore our cheese has depreciated in value for want of proper cars on railways, and proper cool steamer accommodation; and if the curing of cheese in cold storage will advance the price of our cheese one-half cent per pound more, we will be saving or giving an increase in value of another \$1,000,000 or more."

In connection with the cheese trade more especially the rates charged in the concentration of the product in central cold storage for future shipment are unfair as compared with the plan followed in some of the States of the Union as the following shows:

"From points west of London, and north of the main line of the Grand Trunk 20½ cents per hundred pounds have been charged, and east of London and south of the main line of the Grand Trunk, 18½ cents per hundred pounds have been charged. Upon shipping these goods out of store the shipper's rate was based on the through rate via Montreal, receiving on this basis, a rebate of 16½ cents per hundred pounds.

"For comparison we will take the concentration rates on cheese at cold storage points in the United States, which are based on a much more lenient plan than is the case in Canada. There are many cold storage points in New York State where cheese is concentrated on a basis of five cents per hundred pounds, and when the buyer wants to ship his goods out, he has the option of asking the various railways for a rate of freight on his goods to the seaboard, thus getting competition where we have none, and we are obliged to pay the high rate."

Mr. MacLaren endeavored to impress upon the House the great importance of developing our valuable waterways system. If this were utilized as it should be the freight rates in this country would be adjusted on a more equitable basis. After dealing with the St. Lawrence route and the route through the great lakes he touched upon the carriage of perishable products such as cheese, butter, bacon, etc., over these routes as follows:

"Ships of greater speed, at least 20 miles per hour, fitted for passenger trade, and being equipped with cold storage, should stop at leading points of shipment, or natural assembling points, or what may be termed express freight, such as butter, cheese, eggs, fruit, poultry, etc. These points should have two or three sailings each way each week. Each point above referred to would be supplied by the company with permanent cold storage facilities for the better protection of perishable freight. Warehouse receipts could be given to the dealer or producer, on which he could draw 50 to 75 per cent. value of goods from the bank, and he could hold the goods in store until ready to ship, when he would get the best rail or steamship rate which could be procured. I feel safe in saying that the cost of transportation upon Canadian exports and imports would be very materially reduced by the inauguration of such a system. I also feel safe in saying that wheat from the North-west would be laid down at the seaboard from Fort William or Port Arthur, at from 5 cents to 6 cents a bushel and a good profit made a distance of 1,700 miles."

Mr. MacLaren's treatment of the subject was in a broad way though giving specific data as he did at Woodstock to show how unfair are some of the freight rates imposed upon the Canadian producer. The question is a most important one and the farmer of this country who are the principal sufferers will never be on an equal footing with his competitors in other lands until he has fair treatment in regard to freight rates. May the day soon come.

Our Western Letter

Fruit Inspection—Freight Rates—Prices for Beef, Mutton and Wool—Demand for Flax Seed.

Winnipeg, May 26th, 1902.

Our thanks are due to Professor Robertson for the prospect of honest packing of Ontario fruits shipped to the West. During the past month an inspector has been travelling through the province and the Territories for the purpose of acquainting dealers with the provisions of the Fruit Marks Act, in order that they may be in a position to protect themselves against imposition in future. The dealers express themselves as well pleased with the Act, and declare their intention of putting the penalty clauses into effect when occasion demands such action. They are also pleased that the Government has taken such prompt action in appointing an inspector. It is said that since it became known that an inspector is located here shipments of apples have shown a decided improvement in packing. Thus a long-standing grievance is in a fair way of being remedied, and hope again soars heavenward, presaging the day when the downtrodden Westerner will no longer have a single kick coming. We do not

Keep Farm Tools Sharp.

In working among the hoed crop, if farmers would make it a point to have all the utensils necessary in good condition the work can be done more readily and effectively. The cultivator teeth, hoes, etc., should be well sharpened and made so they will pass through the soil quickly and effectively and cut the weeds off below the surface. To begin to cultivate a crop with a dull instrument makes the work unnecessarily heavy and besides it cannot be as well done.

A small forge and anvil would be most convenient things to have on any farm. With these the farmer could sharpen his own cultivator and plow points and not only save the actual cost of this work but the time it takes going to and from the blacksmith shop. But if he has not these conveniences, the farmer should have the work done early elsewhere. Whenever the cultivating season arrives there should be no delay in getting to work. To parody a familiar phrase, "a stroke in time saves nine" later on.

Coming to Toronto.

A press report on Friday last stated that the British mule camp at Lathrop, Mo., will be transferred to Toronto. This camp has been maintained since May, 1901, during which 80,000 horses and mules for use in South Africa have been handled. It is also stated that 2,000 horses will be shipped to Toronto in a few days. If this report be correct, it would indicate that the British Government have decided to establish a permanent remount depot in this city.

equal to one and three-quarters millions of dollars, more or less, to the farmers' income, as a result of the competition of the C.N.R.

Beef cattle are steadily rising. A week ago the top price for prime beef steers, off cars here, was 5c., and to-day the same class of animals bring 5½c. The shortness of the supply presages a further advance. There is always, at this season, a shortage of beef and mutton in this market, owing to the general preference among farmers for the easier system of selling the grassed cattle in August and September for export, instead of feeding for the spring trade. There are, of course, a certain number of cattle fed each winter, and the advance of two cents over September prices is, or should be, a great inducement to extend operations along this line.

Sheep and lambs are always scarce, and bring prices far above the quality shown. At present dealers are paying 5½ to 6 cents for somewhat inferior grades. Lambs are unobtainable. Hogs are fetching fair prices; packers are paying as high as 6½c. for choice bacon hogs, and other grades proportionate.

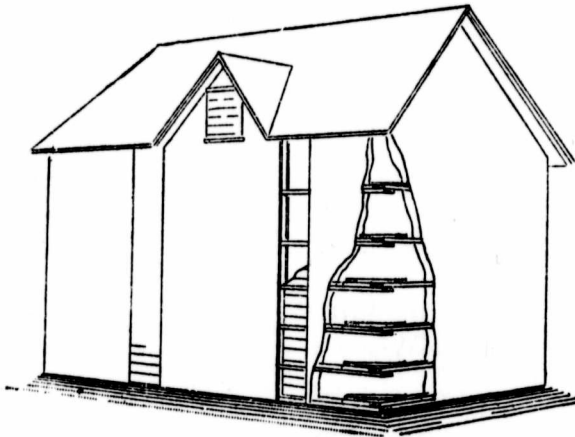
Among the arrivals from the United States who have settled during the present season in the Northwest Territories might be specially mentioned a large number of Montana sheep ranchers. After long and enviously admiring the green pastures of Canada from across the line fence (and sometimes, it must be admitted, trespassing on those fields), they have concluded that beneath the folds of the Union Jack is a good place to grow mutton and wool. These men know the sheep business from A to Z, and are in it for money. If they did not believe there are dollars to be extracted from the sheep runs of Western Canada they would have gone elsewhere. They are enthusiastic in their praises of their new found land, and we believe their expectations will be realized.

The demand for flaxseed indicates a probable increase in that crop this year. This is due to the unusual area of newly-broken land, which will produce no other crop but flax; to the wet season, which has left a considerable area of land unseeded that can now be sown only to an early maturing crop, such as flax; and to the newspaper propaganda of the linseed-oil manufacturers. The Dakota crop will also be large, owing to the amount of land intended for wheat, but not sown on account of wet weather. There are several things which may happen to prevent over production of flax this year; it is an open question as to whether a light crop and a good price, or a heavy crop and a low price is the more undesirable.

Weather has now settled down to a regular routine of sunny days and rainy nights, the very finest of growing weather. The rapid growth of all crops now sown promises to compensate for the lateness of the season.

wish to lump all shippers of Ontario apples in the class that need Government supervision to keep them honest. There have always been a sufficient proportion of good apples to keep the trade from going to smash. A recollection of the number of good men who could have averted destruction from Sodom and Gomorrah will suggest the proportion of good and bad in the ambiguous merchandise known as Ontario apples, necessary for the above purpose.

The Canadian Pacific Railway Co. have decided to make no reduction in grain freights until September next. From this we may deduce that all grain from competing points has been moved, and that whatever remains in the country is located where the lower rates offered by the Canadian Northern cannot affect the choice of route. In any case, there would be no benefit to the farmer by a reduction at this date, since the quantity of wheat unsold is inconsiderable. The wheat of 1902 will be moved for three cents less per bushel than that of 1901, adding that amount,



The Completed Building with Lining and Siding Broken Away to Show Appearance of Frames at Corner.

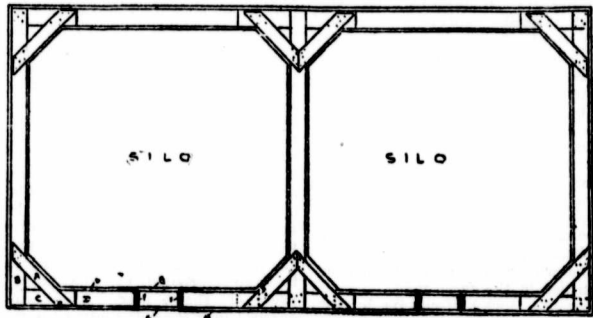
Constructing a Summer Silo

The silo has long been recognized as one of the very best methods of preserving succulent food for the winter feeding of live stock. It has of late years gained very much in favor as a means of preserving food for the supplementary feeding of dairy cows during the summer months when the pastures are parched and dry. Every silo is, however, not suitable for summer use. For this purpose a small silo or a rectangular silo that can be petitioned off is most suitable. We reproduce herewith illustrations from a recent issue of Hoard's Dairyman, showing how a convenient and inexpensive rectangular silo may be made. The construction of this silo is simple and has this advantage that pits of the required size can be added to it at will. The tie across the corners so increases the angle that it offers but little more resistance to settling than a straight wall.

The construction of the silo is described as follows:

"All necessary details of construction are shown by the cuts. Make a foundation wall coming up above the surface sufficiently so that the ground may be graded to carry all water from rains and melting snow away from the building. On this foundation lay the first frame, which may be doubled, if desired, and secured by bolts set in the wall. At each corner of this frame and in the middle, set up blocks 19 inches long, and on these build the next frame—setting it ex-

actly above the first. On this second frame set up other blocks upon which to build the third frame, making these blocks long enough to space these frames 2 feet from centres. Continue on in this way, adding frame above frame, increasing the distance between, until at the top they may be 4 feet or even more apart. These frames, for pits not exceeding 14 feet on a side, may be made of 2 x 8 inch stuff.



One of the Frames. The Inner and Outer Lines with Adjacent Space Representing Respectively the Lining and Siding.

Above 14 feet use 2x10. Use spikes freely.

"When the third frame is in place commence to stay-lath and brace. If the outside is to be covered with clap-boards drop siding, or ship lap, nail on one inch furring strips. This will leave a space for circula-

tion of air from top to bottom in summer and prolong the life of the silo. Use building paper under the siding.

"Finish the interior with two thicknesses of boards, with best quality tarred building paper between them. The first course of boards may be of cheap lumber and should be put on diagonally, each board constituting a brace. The second lining should be free from sap and loose knots and made of narrow boards. We do not consider matching necessary, but many use stuff that has been tongued and grooved.

"Leave openings for taking out the silage where most convenient.

"These openings are not closed with doors, but with boards cut in lengths to fit and put in as filling progresses—two thicknesses with paper between, same as the lining. Doors hung with hinges may be used on the outside.

"The carrier goes in at the door in the dormer and a chute turns the silage into either pit as desired."

Remedies for Injurious Pests.

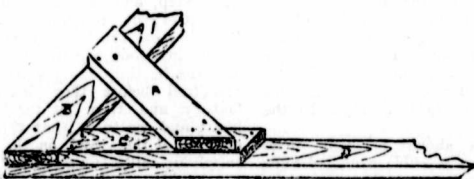
This is the season of the year when insect pests hover around seeking what they may destroy of the farmers' fruits, grains and roots. In this, as in many other lines, an early application of preventive or destructive measures will accomplish much. From some literature received from the Department of Agriculture at Ottawa

we glean the following brief notes on injurious insects and their remedies:

The clover root-borer is best remedied by a short rotation and the ploughing down of infested fields as soon as there is a pretty good growth after the hay has been cut. The best remedy for the green clover weevil is early cutting.

Among roots and vegetables, cabbage worms are a common enemy of the market gardener; but they can be exterminated by dusting with pyrethrum (which is insect powder) and lime (or some other dry diluting substance).

In turnip fields, dust with one pound of paris green mixed with 50 pounds of flour, land plaster,



Enlarged Section Showing Construction.

slaked lime, or any other equally dry powder.

For root maggots of cabbages and cauliflowers the use of the Gough tar-paper disks will give good results. In onions and radishes, carbonized mixtures have proved effective.

The best remedies for turnip aphid are spraying with kerosene emulsion or whale-oil soap solution one pound in six gallons of water, at the time colonies first appear in August; also ploughing down deeply the tops as soon as cut from the roots, as eggs are found to be laid upon these in large quantities.

For the pear leaf blister use lime, salt and sulphur spray, used in winter. For the mealy plum aphid spray with whale-oil soap and quassia—one pound of soap in eight gallons of water. For the red turnip beetle, spray or dust with arsenical poisons. For the asparagus beetle, spray with either kerosene emulsion or whale-oil soap.

For potato scab, soak them before planting for two hours in a solution of eight ounces of formalin in fifteen gallons of water. For the flea beetle in potatoes, mix four pounds of bluestone, four pounds of unslaked lime, four ounces of paris green, and add to 40 gallons of water. For potato rot, use six instead of four pounds of copper sulphate.

The remedies for Hessian fly are late sowing, the burning of all refuse, either during winter or before spring, ploughing down the stubbles deeply as soon as possible after the crop is cut, so as to place the insects so deep beneath the earth that the delicate flies, when they emerge, cannot reach the surface; or to run a harrow over the fields as soon as the crop is cut, so as to start the volunteer crop from grain which has dropped in harvesting and induce a growth of wheat on the field sooner than otherwise would be the case; but when it is found that a young crop of fall wheat is only lightly infested, it is possible to stimulate the growth of the plants by a light application of nitrate of soda.

The wheat-stem maggot may be remedied in the same way.

For the Rocky Mountain locust, take one part of paris green, one part of salt, and eleven parts of bran. Mix in a mash, adding as much water as the stuff will hold. Spread in as small lumps as possible.

If the seeds have not been treated for pea-weevil, fumigate with carbon bisulphide as soon as possible after the peas are ripe. For the pea moth add one pound of paris green to one hundred gallons of water and add one pound of whale-oil soap to every twenty-five gallons of the mixture, and spray.

For the variegated cut-worm, the parent moth of which in England is known as the "pearly underwing," Dr. Fletcher has found either of these remedies successful: The banding of freshly set-out annual plants with rings of paper or tin; or the poisoning of the cater-

pillars either with traps of fresh vegetation tied in bundles and, after being dipped in a mixture of paris green and water, or other poison, distributed at short intervals over infested land, when the cut-worms appear.

For the squash bug, hand picking early in the morning is claimed to be the most practical remedy, though the young bugs can be destroyed by spraying with kerosene emulsion or whale-oil soap. For tomato leaf blight use Bordeaux mixture as soon as the disease is

discovered. For June beetles or bugs on trees, spray the foliage with arsenical poisons.

There are three important fungus diseases of the sugar beet for which remedies have been found. They are root-rot, leaf-spot, and beet-scab. The first can be remedied by putting sixty to seventy bushels of air-slaked lime to the acre; the second by the use of Bordeaux mixture; and the third by avoiding for the growth of beets any soil which, during several years previous, has produced scab by beets.

The Care of Milk

AERATING AND COOLING; KEEP IT AT A LOW TEMPERATURE

Last week we dealt with the importance of every patron of a cheese factory or creamery taking the very best care of the milk which he supplies. In Bulletin 120, just issued by the Department of Agriculture, Prof. F. C. Harrison, of the Ontario Agricultural College, gives some very good advice on the care of milk from which we take the following:

"The dominant note sounded at the recent Dairymen's Conventions was better care of milk; for unless this care is given, it is impossible for the butter or cheese-maker to produce a prime article. According to many speakers and writers, the time has come when contracts should be made between the milk producer and the factory executive; and these contracts should contain provisions for the exclusion of fowl and swine from cow stables, the care of stables so as to avoid the accumulation of dust, cobwebs, etc., the whitewashing of stables twice a year, cleanliness in milking, efficient aeration and cooling, proper places for keeping the milk, the delivery of the milk at the factory at a certain temperature, and the proper washing of utensils. Should these improvements be made, I am sure that the results would surprise all concerned; and the little extra care involved would be amply repaid by the higher price of cheese made from milk handled in a careful, sanitary manner; for it is well known that buyers discriminate and place considerable emphasis on the reputation of a factory; and they would, we think, quickly notice the merits of such a system as that suggested."

THE STABLES.

"The bacteria existing in the air of most of the stables are very undesirable, especially those whose habitat is in the manure, dried particles of which are wafted about in the building by the slightest currents of air and fall into the milk pails during milking, and during straining when the cans are kept in the stable or close to the barnyard.

"Stables should be kept clean (as free as possible from cobwebs and accumulations of dust), and be

whitewashed twice a year, once in the fall and again in the spring when the cows are put out to pasture. The whitewash should be made from fresh lime; and after slaking, a wash of about the consistency of cream should be made, strained through a piece of sacking and applied by means of a brush or ordinary spray-pump. In the latter case, two or more applications are necessary each time. A little molasses, size, or Portland cement added to the whitewash increases the adhesiveness. In case disinfection is thought to be necessary, crude carbolic acid may be used in the proportion of a pint to every gallon of whitewash.

"Whitewashing not only decreases the bacterial infection; but it increases the amount of light in stables, thus directly promoting the health of the stock."

THE CARE OF CANS, PAILS, STRAINERS, ETC.

"Nothing is more difficult to clean properly than cans, pails, strainers, etc., with the facilities at hand on the average farm. No matter how hard the good housewife may scrub the can, she will rarely succeed in cleansing it so thoroughly that it will be free from bacterial life. A solution of soda is commonly used, and it is effective in removing grease and other forms of dirt; but it has very little germicidal value. Even a four per cent. solution is of little use as a germicide. The final scalding with hot water (one cannot say boiling water) is sufficient to kill bacteria on the inner surface of the can and in the cracks and crevices which are usually present. Steam, the best means of sterilizing cans, is not available on the farm. Hence the proper place for cleaning cans is at the factory, where all appliances are at hand for doing the work thoroughly and expeditiously. So far as we can see, this is the first step, and a very important one, towards the removal of the trouble from the bitter Torula and other injurious organisms. Let all cans be thoroughly washed and sterilized before they leave the factory; and then let the factory insist and see to it, that those in charge of the work on the farms supplying milk, (1) wash and scrub thoroughly (and occasionally

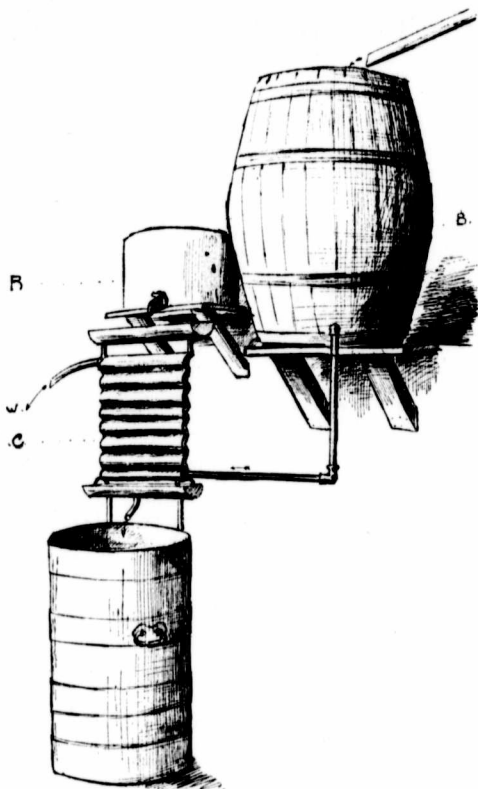


Fig. 7. Cooling and Aerating Apparatus.

- B. Barrel filled with cold water from well.
 R. Reservoir to hold contents of milk pails.
 C. Cooler and aerator. The milk passes over the corrugations.
 W. Waste water pipe from the cooler. The water enters below on the right side and passes out at W.

scour) all pails, strainers, dippers, and other utensils used in handling the milk; (2) rinse all pails strainers, dippers, etc., thoroughly with boiling water immediately before using; and (3) rinse the cans out thoroughly with boiling water a few minutes before putting the milk into them.

"The practice of carrying ordinary, unpasteurized whey in milk cans from the factory to the farm cannot be too strongly condemned. So long as it is done, so long will there be trouble and serious loss from undesirable taints and flavors in milk; and the surprising thing is that good factories tolerate the practice. Let the whey be taken back in a can kept for the purpose; or, if that cannot be done, let all the whey be pasteurized at the factory by using the exhaust steam from the engine.

"Utensils should be cleaned at the farm in the following manner: First, wash with water; then scrub well with a hot soda solution, using about two per cent. of soda (powdered concentrated ammonia may be used instead of soda); next empty out the soda washings, and scald with boiling water; lastly empty the water out and allow the can to drain dry. Provide, if pos-

sible, some kind of cheap rack, to set the cans on, at an angle of about 45 degrees. On such a rack the cans will dry out nicely and will not be much exposed to infection from dust, falling leaves, etc.

"Do not, on any account, leave the water in the can; and do not use cloths or brushes in the final rinsing with the boiling water."

MILKING.

"The cows, before being turned out in the spring should have their flanks, udders, and tails well clipped. If before milking, the udder of the cow is rubbed with a damp cloth, the germs which are present on the hairy coat of the animal are prevented from falling off into the milk pail, as bacteria cannot leave a moist surface. Milking should always be done with clean dry hands. Immediately after milking, the milk should be strained through a brass wire sieve, with several thicknesses of cheese-cloth on it, or, better, a woolen cloth; but these cloths must be carefully cared for and rinsed in boiling water every day. If they are not so cared for, their use should be dispensed with, as neglected cloths are an undoubted source of infection."

AERATION AND COOLING.

"Aeration and cooling are both very desirable.

"The Copenhagen Milk Company require that the milk be cooled to 40 degrees F. at the farm, and that when delivered at the city establishment, it shall not be more than 50 degrees F. These figures are possibly too low for ordinary factory practice; but, if the milk were cooled even to 60 degrees F. at the farm, or to a temperature, say, two degrees above that of the water supply, it would be a great benefit.

"Most of the best coolers aerate as well as cool, and those properly constructed should cool the milk to a temperature of two degrees above that of the water used for cooling. Should the farmers be unwilling to incur the expense of buying coolers, an arrangement may be made as at Copenhagen, Denmark, by which the factories would let the coolers out on hire. These coolers, made of copper, tinned over, are practically indestructible. With ordinary care, they last for ten or more years, and when the tin wears off they can be replated.

"Most farmers now have wind-mills for pumping water, and a connection could be made with a barrel or tank suitably placed; and necessary, ice could be used in the barrel."

KEEPING THE MILK.

"The factory management should clearly and strongly forbid the following practices:

- (1) The keeping of uncovered cans under trees.
- (2) The keeping of uncovered cans near stables, piggeries, or barnyards.
- (3) The keeping of cans for more than short periods on milkstands by the roadside.

"Every farmer engaged in milk production should have a room in which to cool and aerate the milk immediately after milking, and to keep the filled cans until the time of putting them on the stand for the drawer to collect. This room need not be large or expensive, and it should be convenient to the stable or place of milking; but in no case should it be placed where there is a liability of infection from barnyard dust, or where the milk is in danger of absorbing stable, barnyard, or piggery odors. It should be sheltered from the prevailing wind. A lean to against a building often serves the purpose very well.

"In this room, there should be space for the milk cooler and accessory apparatus, a spring weigh scale and a requisite number of milk cans, a strainer, pails, etc.; and the milk, taken there immediately after milking, should be strained, and at once emptied into the tank above the cooler. In this way, the cooling and aeration would be finished a few minutes after the last pail of milk was drawn. Fig. 7 conveys some idea of what the interior of such a room should be like."

The Management of the Feeding of Colts

While it is of the greatest importance that special attention should be paid to the breeding of the colt, no less care should be exercised in regard to its management and feeding during the early days of its life. Many a well-bred colt is ruined by improper and careless treatment in its early days. The Live Stock Commissioner sends us for publication some pointers on this subject that are quite seasonal and which are as follows:

Many people think that a mare should rest from work for several weeks before foaling. There is no need of this. If a brood mare has been accustomed to farm work, let her continue at such work until a few days before she is due to foal. Moderate work is not only harmless, but beneficial to mares in foal, provided proper care be taken not to overload them. It is certainly better than keeping them tied up in the stable, or permitting them to run at large in the fields with other horses. In the former case, they suffer from want of exercise, and in the latter they are very liable to accidents from racing, playing or fighting with one another. After the foal is dropped the mare should have a few days' rest, not only for her own sake, but for that of the foal as well. When the time of foaling approaches the dam should be turned loose in a large box stall, or if the weather be mild, in a paddock. When the mare is a valuable one, and the prospective foal is looked for with a good deal of interest, it is well to watch her closely, as many valuable animals have been lost, which, by a little attention at the right moment, might have been saved. About the best time for foaling is the latter part of May, as there is then an abundance of grass, and the heat is not excessive. Autumn colts will do well if carefully wintered. Colts born in midsummer—fly time—should be housed during the day, and the mare fed green feed. These extra cares are an objection to this time of breeding. For a considerable period before foaling the mare should be fed on soft food, so as to keep her bowels open and stimulate the flow of milk. The foods that have been found useful in increasing the flow of milk in the cow, will have the same effect upon the mare. Wheat bran is particularly desirable, fed in the form of a mash; oats, clover, hay and carrots are all good, but plenty of good fresh grass is probably the best aid to healthy and abundant nutrition, for both mare and foal.

It is of the highest importance that the young horse should start life in full health and vigor, and to this end he should very soon after birth take a good draught of the colostrum, or first milk of the dam. Colostrum has a purgative

effect which is necessary in order to cause the bowels to assume their natural functions. It is not accomplished naturally, a gentle purgative of castor oil should be given.

If the foal is born in the foetal membranes, it must be liberated at once, or it will suffocate. If the navel cord is not ruptured, it may be tied tightly in two places near together and cut between the cordings, or it may be severed by scraping it with a dull knife about two inches from the navel. Colts will bleed to death if the umbilical cord is severed too close to the body, and too soon after the colt is born; careful watching is better than luck at such times. Foals are very subject to a disease called joint evil, which is almost always fatal, and when not actually fatal, renders the foal not worth raising. Recent investigations have shown that this disease is caused by blood poisoning, the poisonous matter entering through the newly-severed navel cord, from the litter or some other injurious substance touching the wound, and that by carefully disinfecting the navel the disease can be avoided in most cases. A weak solution of carbolic acid is very good for the purpose. Among the other common troubles of young colts, are diarrhoea and constipation. The former is usually caused by over feeding, or exposure to inclement weather, and should be checked at once by the use of such correctives as parched flour, rice meal gruel, and boiled milk. Constipation on the other hand may be relieved by the use of castor oil, and by injections of warm water to which soap has been added. In all cases of derangement, it is well to at once lessen the amount of feed of both dam and foal, thus assisting nature to restore the digestive tract to its proper condition.

At two or three months old the foal will begin to nibble grain from the mother's feed box, and by the time it has reached the age of five or six months it should be accustomed to eat all sorts of food. The weaning of the foal should be done gradually and when it has grown used to eating it should be confined in a loose box, where there is nothing in which it can become entangled and fed on soft feed. The dam should then be put on dry feed and given moderate work. The milk must be removed occasionally, but it is better not to milk dry, as the secretion will cease sooner. As soon as the foal is properly weaned, he should have the run of a good pasture, as there is no food better than grass, no medicine as good as exercise, fresh air and sunlight. As the weather grows colder the foal should be put in the stable at night, and fed a little oats or bran. As soon as

the winter sets in he should if possible, have a loose box and be let out every day for an hour or two for exercise, feeding a little bran mash, a few carrots and clover hay. With such care he will come out in good shape in the spring.

Whenever it is practicable the colt should be broken to halter while yet a suckling, and the earlier in life this process is commenced the more easily it will be accomplished. He may soon be led by the side of the dam without difficulty, and when once accustomed to being guided by the halter, it will be an easy matter to lead him anywhere. By the time he is weaned, he will lead like an old horse, and when the time comes to break him to harness, he will give little trouble; in fact he is already broken. When a colt is two and one-half years old, hitch him alongside of a steady, aged horse, and he will become accustomed to work. Use him to do light work the first winter and so prepare him to take a share of the spring seeding in the farm. Always be careful not to put him to the hardest work until he is fully developed, and capable of taking his side at anything that is to be done on a farm.

Peace, Sweet Peace.

On Sunday afternoon the good news reached Toronto that "Peace was signed last night." The document containing the terms of surrender was signed at Pretoria on May 31st, at 10.30 p.m., by all the Boer representatives and by Lord Milner and Lord Kitchener, representing the British authorities. The terms of surrender had not been made public when we went to press.

Thus ends a war that has added increased prestige and power to the British Empire. The war began in September, 1899, when Kruger's insulting ultimatum was delivered. In June, 1900, Lord Roberts entered Pretoria thus practically annexing the Transvaal and the Orange Free States as British territory. Since that time the Boers have kept up a foolish and unnecessary guerilla warfare, which has taxed the energies of the empire to cope with. That peace has finally been reached every citizen of Canada will rejoice to learn and none more than the agriculturist who is the backbone of the Dominion.

JUST PUBLISHED Richardson's War of 1812

With numerous explanatory notes and a life of Major John Richardson, the First Canadian Novelist and Historian. 292 pages, octavo. Illustrated with 31 Portraits, Maps, Plans and Views. Cloth, \$3 00.

"It is a faithful narrative, by a participator, of stirring actions in which the glorious part taken by our defenders will always be a source of pride to the people of this country. It holds a prominent place in the literature of Canada. Above all it is commendable to young and old in this Dominion by its wholesome Canadianism, its inspiring teachings of our duty of the Empire, and to our native land. If it were put within the reach of all our boys to-day it would nourish the right spirit in them."—The Mail and Empire, Toronto.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beetlets.

The people of the United States pay more for sugar than they do for flour.

A sugar factory will consume 60,000 tons of beets a year, 75,000 tons if they could get them.

And would pay the farmers \$25,000 to \$30,000 in cash for them.

Can you comprehend what that means to your locality if you should be able to get a factory established there.

A factory uses about 100 tons of coal a day and the cinders would make the finest kind of a road.

You could soon have all your roads in first class shape at a trifle of expense.

Sugar factories and good roads go hand in hand.

Sugar factories and dairying go hand in hand also.

A sugar factory has each season 30,000 to 40,000 tons, not pounds, of pulp that make the finest kind of feed for all kinds of stock.

As a rule the factories give this pulp to the farmers that grow beets, free the first year.

A factory now building has been offered a high price for their pulp, for shipment.

The lime cake from a factory is valuable as a fertilizer, and the farmer contracting with the factory for beets receives this free and need never buy any other.

The tops and leaves also make a good fertilizer, and it is better to use them for that purpose than to feed them, so long as you can get the pulp.

In 1901 the United States imported 4,672,789,000 pounds of sugar.

The advantages of the beet sugar industry are many. It diversifies agriculture and furnishes employment to a large number of people, creating a demand for other crops.

Instead of reducing the production of other crops it gives rise to an increased demand. It tends to introduce foreign capital into the locality and will when established, retain at home a vast amount of money which would be sent to other sections for investment by the banks.

It produces a more intensive system of agriculture, and better and more thorough methods of farming.

It raises the value and rent of land.

To produce all our own sugar means that the province would be one vast beet field.

What the farmer wants is an increased home market.

The development of the beet su-

gar industry to the fullest extent will be a move in the right direction towards that end.

It is to the personal interest of every farmer to encourage the factories now building.

The successful operation of a couple of factories this year means several more built next year.

A factory in your own locality will do more to increase your income and the value of your farm than finding a gold mine.

It will pay any community to secure a sugar factory, but to secure one you must demonstrate that you have suitable soil for the growing of the beets.

You must also show that you are willing to grow them of the proper quality, and the necessary quantity.

The beet crop is a new one in this province and the farmer who has an opportunity to grow sugar beets for a sugar factory and does not take advantage of it loses one of the chances of his life.

If you are asked to sign a contract for next year, do so at the first opportunity. Do not wait to be asked the second time.

Remember that at least 70 p.c. of the sugar of the world is beet sugar and that 90 p.c. of all the sugar used in Canada is beet sugar.

The farmer who conducts his farm on business principles will grow sugar beets, if he has an opportunity.

The farmers of Waterloo are business men, they have agreed to furnish a sugar factory with all the beets that can be worked up, and also agree to give the factory a bonus on their next year's contracts.

The farmers of that section know a good thing when they see it, and do not let it slip by, if they can help it.

If the farmers of Waterloo cannot make a success of raising sugar beets, no other farmers need try.

Excursions will be run to the beet fields around Berlin during the season.

The Berlin, Waterloo and Bridgeport Electric Railway will run special excursions to the sugar factory and the beet fields once a week or oftener.

The summer excursions to the Experimental Farm will probably be extended to take in the beet fields around Berlin.

Make no mistake the beet sugar industry is here to stay.

Markham.

Mr. Hugh Blain, of the firm of Eby, Blain & Co., wholesale grocers, of Toronto, recently addressed the electors of this village and surrounding country. The principal part of his discourse was upon "Beet Sugar Industry," and the advantages derived therefrom to the country and more particularly to the farmer. The address was listened to with great interest and has awakened the people of this district to what may become of great value to them in the near future.

A Good Dividend.

The Holland Sugar Co., of Holland, Michigan, have wound up their season's business, and declared a dividend of 16 p.c. upon the year's operations, besides greatly reducing the indebtedness on the plant.

This factory was built by Messrs. E.H. Dyer & Co., of Cleveland, has a capacity of 350 tons of beets a day and this season sliced 26,000 tons of beets.

Annual Picnic.

The Annual Picnic and Excursion under the auspices of the Farmers' Institutes of East Durham, East and West Peterboro and East and West Northumberland, will be held on Thursday, June 12th, 1902, at Rice Lake; addresses will be delivered on the "growing and cultivation of the sugar beet," in order to give more definite information to the farmers, (with a view to getting a factory in that district.) by such able and experienced men as Prof. Harcourt of the O.A.C., Guelph, Duncan Anderson, Esq., Rugeby, and Andrew Elliot Esq., Galt. Special excursion rates have been made from all parts, and local arrangements have been made to take care of a very large attendance.

Experimental Plots.

The experimental plots of sugar beets planted under the auspices of the Ontario Government, are for this season of the year in remarkably good condition, the plants are all up and a good stand has been secured. Prof. Harcourt, who has charge of the work this season is very much pleased with the outlook and especially with the class of farmers, who have the plots under cultivation, he is satisfied that not one of the plots will be a failure and that the results in every case will be most favorable, both as to sugar content and tonnage.

Get a Good Seed Bed.

The Michigan Sugar Beet says: The whole secret of beet culture lies in the proper cultivation of the

seed bed—if the ground is thoroughly prepared before hand—you have won the battle.

In Germany it is a popular saying: "The sugar is hoed into the beets." Frequent hoeings keep down the weeds, loosen the soil so that air can exert its beneficial influence, and keep the moisture in the ground. Hoeing should be begun as soon as possible, twice before the thinning out, which should be started as soon as the young plants have roots about one-eighth to one-sixth of an inch in diameter, or are about two inches in height. Great care must be taken in attending this part of the work, which is the most important of all the cultivating work. After the third hoeing the cultivator should be used every eight or ten days, and oftener if the growing weeds should demand it.

Early thinning out is the main requisite for successful beet raising, and can only be done properly by hand. When the beets have attained some size and show four leaves it is time to commence the thinning. The thinning out must be done in the most careful and prompt manner, as on it depends in a very large measure the yield and quality of the crop. Every inch of the beet field must be carefully weeded and nothing allowed to be seen above ground save the outward evidence of inward sugar developing growth.

The proper time to thin the beets is while the plants are very young, as soon as the third or fourth leaf becomes well defined and the root is only a mere thread. If the thinning is delayed too long the plant receives a setback from which it has difficulty to recover. The thinning out may be extended over a period of at least 14 days without injury to the crop, and the different dates of thinning within this time would not have perceptible effect on either the quantity or the quality of the crop. The thinning must be done in such a manner as to leave the plants standing six to eight inches apart. In very rich soil—six inches and even four inches space between each beet in the row would be preferable. In fairly rich soil it would be advisable to thin out eight inches apart, while in poor land thinning out to ten inches apart is necessary. It is generally contended that beets eight to ten inches apart turn out poorer than those growing closer together, and that if the stands are equal, more tons per acre will be raised at less than eight inches apart than at over this distance. The rows should first be spaced and bunched, which is done with an ordinary four or six inch hoe, cutting a four or six inch bunch, which will contain several plants, all of which are removed by hand-pulling except the strongest plant. The best way for a person to thin beets is resting on his knees, go over the row selecting the best beet plant and holding it down firmly with the thumb and finger of the left hand, while a quick move of the right hand pulls up all the remaining beets and

weeds. The ground must be firmly pressed around the remaining plant. If timely thinning is neglected the roots become entangled, making the thinning detrimental to the plant that is left.

One person can thin an acre of beets in about four days, hence a given acreage can be thinned out at the rate of one person to each three or four acres. In small beet fields the thinning can generally be done by the family of the farmer, but the work must be done quickly, and where a large acreage has to be attended to it is advisable to hire help rather than delay the work until the beets attain much size. The pulling out of the surrounding plants leaves the remaining one in a weak condition, which is not the case while only beginning to send its roots into the ground. After the thinning out, three or four hoeings should be given, and the beet field needs no further care until the harvesting time, about five months after planting. In hoeing be careful not to cover the top of the beet below the leaves with dirt when cultivating—in other words do not hill your beets.

Notes Re Cultivation and Thinning of Sugar Beets.

The very early sown beets have not germinated quite so well as those sown later. Our first sowing

was done the latter part of April and the first week in May. Those sown towards the middle of May and on till the 20th, have sprouted in from 8 to 10 days, and show a much fuller stand of plants. The essential condition for good germination consists in a firm, warm, moist soil as free as possible from crust.

At this date most of our beets can be distinctly traced in the row; the plants stand from $\frac{1}{2}$ inch to 1 inch in height.

The cultivators are now being freely used, and a number of our farmers have commenced blocking and thinning. We have found it a decided advantage where the acreages are large, to plant at different dates which facilitates the thinning of large acreage.

In order that the beet plants keep in advance of weeds, it is very essential that conditions of soil and climate for rapid germination, are present before sowing. We find under such conditions the beets can be traced in the row before weeds have made any considerable progress in growth. The cultivator is then used, which is set so as to get as close to the row as possible without injuring the plants. It is not however, safe to get closer than $1\frac{1}{2}$ to 2 inches on each side of the row. The first cultivation should consist simply in setting the machine that it just pares the

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Will contract to build complete beet sugar plants, including all machinery and building; also furnish the necessary technical and skilled help to operate them.

Now Building the Factory at Berlin.

ground, say $\frac{1}{2}$ an inch deep which cleans and mulches the ground. Almost immediately after cultivation, one may begin to block with a 6 inch hoe. In the course of a few hours after blocking, the cut plants wither, after which hands can thin the bunches, leaving but a single plant in each place which plants will be practically 8 inches apart in the row.

The thinning is most easily accomplished by the party kneeling over one row, and weeding that row over which he kneels and one on each side. After beets are thus cultivated and thinned, they grow more rapidly than before.

In the course of several days after thinning, it will be noticed that weeds commence growing and the ground contains a crust, at which time it is advisable to cultivate again. The plant being bigger, there is less danger of it being covered with earth during the cultivation, therefore the machine can be set to cut deeper into the soil, ($2\frac{1}{2}$ to 3 inches) which loosened up soil permits rain to enter more freely.

Possibly a third, or in some instances a fourth cultivation may be accomplished; but, in most instances it will be found that the rapid growth of foliage which is characteristic of sugar beets, will almost completely cover the ground making it impossible to further cultivate. When the foliage has thus developed, which development will except in very late plants beets, occur by July 1st, no further work is required.

The beets grow rapidly, penetrate into the soil to a considerable depth and reach their maximum size towards the middle of August, after which, by the crowding of the foliage under the influence of cold nights and bright summer days, maturity advances, during which time sugar increases rapidly in the beet.

Thinly planted beets have a tendency to continue growth on towards the end of September and the early part of October instead of maturing. Where growth continues sugar and purity in the beet are very low. It is therefore essential that we secure a maximum growth of beets early in the season during the months of June, July, and August, giving time during September for the development of sugar and purity.

A. E. Shuttleworth, Agriculturist,
The Ontario Sugar Co., Ltd.

Greatly to be Desired.

"I have fully established communication with Mars. What great question shall I submit to them first?"

"Ask them," said the young woman promptly, "if they have discovered a comfortable and suitable bicycle costume for girls that is also attractive."—Chicago Post.

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Main Offices: 71 Broadway, New York, N.Y. Western Department: 305 Telegraph Block, Detroit, Mich.

Specialties:—BUILDING OF BEET SUGAR FACTORIES;
AND BEET SUGAR FACTORY SUPPLIES.

We have the record of building modern equipped and economical running factories, more than 20 years' experience in this special business. Correspondence solicited.

We are also sole representatives of BUETTNER & MEYER, Urdingen, Germany, manufacturers of the best pulp drier in the world. This drier received the prize of 20,000 marks offered by the "Centralverein für die Rubenzuckerindustrie" in Germany.

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The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep and Swine Breeders' Association, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$2.
BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers situated in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs: that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

A. P. WESTERVELT, Secy. ary.
Parliament Buildings, Toronto, Ont.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations, in the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular departments of farm work in which a position is desired, wages expected and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

Wanted a young man to do general farm work on a farm near Woodstock. Wages \$125 to \$175 a year according to experience and usefulness. No. 101. a.

Wanted.—A young man to help milk and herd cows on horseback. Will pay \$225 per year and board for steady man who is willing and industrious. No. 102. a.

Wanted.—A good man to do all kinds of farm work would either engage for six months or by the year. Will pay good wages to a satisfactory man. No. 103. a.

Wanted.—A man with knowledge of gardening, milking and general farm work, with no bad habits. Wages \$18.00 to \$20.00 a month. No. 100. b.

Situations Wanted.

Wanted.—A position, by a middle aged man, on a farm where the work is not too heavy. No bad habits and is quick and understands farm work thoroughly, the care of horses, cattle, etc. Can furnish the best of references. No. 600. b.

Wanted.—A position on a farm by a middle aged woman with husband. Woman is accustomed to farm work. Husband is crippled by paralysis but can do light chores around buildings. A good home will be appreciated more than high wages. Can furnish good references if desired. No. 601. b.

N.B.—Where no name is mentioned in the advertisement, apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Farmers' Institutes.

Under this head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institution that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes

Farmers' Institute Excursions to Agricultural College, Guelph

- June 10th—Lincoln, G.T.R., W York, C.P.R.
- June 11th—North and Centre Grey, C.P.R.
- June 12th—East Simcoe, G.T.R., Lennox, G.T.R.
- June 13th—South Simcoe, G.T. R.
- June 14th—North and South Brant, G.T.R., Welland G.T.R.
- June 16th—Centre Simcoe, G.T. R.; South and Centre Muskoka, G.T.R.
- June 17th—East Middlesex, G. T.R.; West Wellington, G.T.R.
- June 18th—South Oxford, G.T.R. West and North Bruce, G.T.R.
- June 19th—South and Centre Bruce, G.T.R. East and West Huron, G.T.R.
- June 20th—East Huron, G.T.R.; Haldimand, G.T.R.
- June 21st—Halton, C.P.R. and G.T.R.
- June 23rd—South Perth, G.T.R.; Dufferin, C.P.R.
- June 24th—North and South Waterloo, G.T.R.
- June 25th—South Grey, G.T.R.
- June 26th—South Bruce and Centre Bruce, G.T.R.
- June 27th—Peel, G.T.R.; West Simcoe, G.T.P.
- June 28th—South Ontario, G.T. R.; North Perth, G.T.R.

Business Methods in Farming.

BY J. J. BEAUMONT, BRACEBRIDGE.

I was induced to write this short paper from the conviction that we as farmers are not sufficiently business-like in the conducting of our affairs, affording in this quite a contrast to the way in which merchants conduct business. I sometimes think that this may be in a measure accounted for by the fact that we farmers grow almost all that we consume, and that we do not pay cash for the crops we grow. Consequently we do not put the same value on our produce that we would if it had to be purchased. Hence the remark which I have often heard, that it does not pay to buy feed for our stock. I see very little difference except the labour in fetching it home. I am positive it is better to buy than to sell. Farming to be successful should be conducted on the same business principles as any other business.

THE FARMER SHOULD KEEP BOOKS

The farmer should know if his year's work has been a success. The labor journal should tell him what the cost of his labor has been, including board; his cash book should tell him what his payments for the farm have been; and at the end of the year his stocktaking and balance sheet should show him his profits or losses. These memoranda if looked over from time to time will set the business man thinking. When he finds the small amounts paid out total up to big figures at the year's end, it will cause him to try to curtail unnecessary expenses and endeavor, by more care and economy to save where hitherto he has been spending unnecessarily. The old adage applies here, "The penny saved is the penny earned".

But it is not only in these matters that we as farmers lack method in conducting our business. Farming has become a science. In my opinion there is no occupation as pleasant, free and interesting to the man who makes a profession of it as farming. I fear that very often many of us look upon our business too much as a means of livelihood and loose sight of the higher interest that should be awakened in us when we see the development of our work, aided by nature, or more properly speaking, by the Higher Power that causes the grass, grain and flowers to grow in their appointed seasons.

CARE AND DILIGENCE REQUIRED.

We should be careful that no loss of crop is sustained by any neglect on our part, either in the planting, cultivating or the harvesting of the crop, that no animal is lost or depreciates in value by neglect in feeding. We should remember that an animal that loses in condition for one week will take two weeks

to put it in the same condition as before. We should be waiting for our work rather than have our work waiting for us, which means doing our work when it costs the least money, for example hoeing almost before the weeds come; (which bye-the-bye is the best time to kill them); to be ready for the hay and harvest crop the very day it is ready to cut; and not allow the grass to become scalded and almost dead before mowing.

The 12th of July is not the only date on which grass is fit to cut, as some people imagine, nor is it wise to think is of no consequence "because we are going to feed it." Why should not the farmer's stock be fed on the best of everything, as well as those of the man who has to buy food for his? Here I would illustrate what I mean by just one item of our farm work, the putting of manure on the land. The time when we have most leisure is in the winter months. Our manure is made in the winter. Why not then spread it on the land in winter? I have practised it the last few years; hauling it out green from the stables and it has been a success. I received the interest, in profit the first year, as the first season's crop reaps most benefit.

From experiments that have been tried at the Central Experimental Farm one ton of green manure is of as much value as one ton of rotted manure (to say nothing of manure that lies about the farmyard all summer taking the rains). There is thirty-five per cent. waste in the rotting. Another reason for lack of success—and it is an important one—is that we are not sufficiently particular in the class of stock we feed. The best bred animal as a rule pays the best. I do not mean that we should all keep purebred stock, but I do maintain that we should breed to purebred males. The best class of animals sells for the highest price. As seen by reports of the great cattle markets. I would not be wedded to any particular breed. Let every man choose the breed that best suits his farm, his market or his fancy, but whatever breed it is, let it be the best of its kind. I once heard a friend say that the best was not too good for him. This should be the motto for all. I would advise farmers to keep a variety of stock even to the keeping of poultry. What one animal would leave, another would pick up, and above all let no waste be made of any one thing that is grown on the farm.

THE OPPORTUNITY OF THE CANADIAN FARMER.

We are much more favorably situated for our business than even the Old Country. There the work is better done, but they have no experimental work going on. The business has been followed up from generation to generation; each generation improving from observation, till in recent years it is a successful occupation. We have the benefit of experiments that have been made, the results of

which have been distributed all over the Dominion, within reach of all, especially to members of the Farmers' Institute.

I wish there were more Institute members in this district. If the Farmers' Institute work is beneficial to outside farmers, surely it should be more so for us in the newer settled districts.

I would conclude my remarks by endeavoring to impress upon all, the young men especially, that the occupation of farming is a noble one. I know farmers as a class are looked upon by some people as inferior members of the community as compared with those of professions or trades. Let not this keep you from following farming. Remember "the man who makes two blades of grass grow where only one grew before" is a benefactor to his country.

I will close by reading a few lines written by Lawrence P. Hext, entitled, "The man behind the plow". The bards have sung no songs of him, no glory has he sought,

Nor for the spoils of victory has he life's battles fought.

There are no glowing stories told, of deeds that he has done

And on his breast he wears no badge, no trophies has he won Upon the page of History, no mention of his name

Is there inscribed, nor is he known within the Hall of Fame. But, tho' no sweet rewards are his, no laurels deck his brow

He is the flower of the field—the "Man Behind the Plow."

Sheep Breeding and Feeding.

BY ELGIN F. PARK, BURGESSVILLE.

To be successful in breeding sheep it is necessary to give them proper care and attention. They should not be left to pick their living by the road side. We live in one of the greatest sheep countries in the world, and yet when we look around, how many flocks do we find? We ought to find a small flock on every farm, but many farmers have not a sheep on their places. Every farm ought to have sheep if only to assist in tidying up the fence corners. This they will do if they are given half a chance, in that they will trim up grass and weeds in lanes, paddocks, and fence corners. Few weeds or plants will escape their notice. The weeds that one sheep will consume in the summer are about as many or more than the average farm boy can be persuaded to destroy in a single season. In a certain sense, therefore, a small band of sheep are wage earners.

They ought to be kept to supply the farmers with meat during the warm months of the year. No more delicious meat can be furnished at such seasons, and none is more wholesome. The farmer can, in this way, get much of his meat supply in summer, and get it virtually without cost, since the pasture which makes the mutton would otherwise be lost, or at least a great part of it.

Ontario has a climate for sheep,

excelled by none. It is free from all contagious diseases so common in other countries, and this fact is a decided advantage for sheep raising. I am glad to say that Ontario has within her borders some of the best sheepmen in the world. She has not only breeders of sheep, but also men who understand fitting of them to compete against the world's best product.

At the recent International Fair at Chicago, which has perhaps been the greatest stock show that the world has seen, and at the Pan-American, the Canadian breeders swept all the best prizes in all classes exhibited. Since the World's Fair in 1893, American breeders have drawn almost entirely upon the Canadian flocks for breeding purposes, and admit that Canada is the best and only country from which they can procure full blooded sheep to keep up the quality of wool and to build up a good sized mutton sheep.

Every year there passes out of Ontario, car load after car load of pure bred sheep to the Western States, as well as to the North West and Maritime Provinces, to build up the large ranches.

The late Fairs have had the effect of turning the attention of the world's best breeders to Ontario, and we trust that a good reputation in this respect will be lasting. At the Chicago Fair sheep that won at the Royal Show in England were not good enough to get third place. This will no doubt have the effect of convincing some of us that England is not the only country to produce purebred sheep.

Ewes before being bred in the fall should be kept on good pasture, so as to have them in a good strong physical condition. After housing for the winter the ram should always be taken away from the flock. Breeding ewes should not be fed turnips before lambing, as it causes lambs to come weak. After lambing turnips should be fed. Provision should always be made to keep up a good supply of succulent food during summer months. For this there is nothing better than rape, and for fall pasture rye is an excellent thing.

In fattening sheep, it is necessary to keep up a continuous steady growth so as to avoid unevenness and bunchedness in the carcass. Sheep should not be closely housed but should be given an open shed, so that they can take plenty of exercise, which is very essential for their well-being. The object in view during winter feeding of lambs is to promote growth. For this purpose you must feed plenty of good hay and occasionally pea, straw with some roots, and a little grain, which would be mostly bran and oats. While the pasture is good in summer, no additional food is necessary. Salt, water and shade should always be within reach of the animals. Care must

Continued on page 625

When washing greasy dishes or pots and pans, Lever's Dry Soap (a powder) will remove the grease with the greatest ease. 25

The Farm Home

The Day's Work.

Do the work of the day as well
As you have the wit to do;
Try for the best—for the best will
tell

What was the end in view.
Always your best—it is cheap to
shirk;

The best makes the worker glad;
And people remember the better
work,
Forgetting the weak and bad.

They remember the careful tool
As well as the perfect song;
Scant is their memory for a fool,
Or him who is idle long.

People remember the honest few
Who gave of the best they had—
They will remember the good you
do,
And always forget the bad.

Do the work of the day as well
As though it would close your
toil.

He who a sermon in stone would
tell
Must chisel and carve and toil.
Weak and lifeless, or firm and true,
The work of the day is set,
People remember the good we do—
The bad they will soon forget

Yesterday is a record made,
Changeless for good or ill;
Hands to-day must be unafraid,
Ready to work your will.
Useless, to-morrow, to sadly rue
Plans that were far from sure,
People remember the good you do,
And they forget the poor.
—W. D. Nesbit, in Baltimore
American.

Bird Neighbors.

One shut up in a city office, store or kitchen, misses the intense pleasure of existence, which is possible to us who live "far from the maddening crowd." One day here is worth a dozen of the city's high-priced concerts.

At the first peep of day, May 7th, I was awakened by the robin's flute, playing his usual cheerful, uplifting tune. It was still too early for him to gather worms to feed his hungry family, but not too early for his musical powers to show at their best. He was succeeded by a burst of melody from the tiny song sparrow, who wished to show the world that all the virtues were not contained in the showy coloring of the robin, and that even the dainty and modest in appearance, might brighten the world with music. Soon the two low notes of an arpeggio were piped in strong, clear tones, then from the top of an apple tree, on the one hand, and in some concealed spot, on the other, two bob-o-links poured forth a rapid, gurgling song. A pause which was filled by the same two tenor tones, and then another bubbling burst of music. This time the second voice did not complete the strain, but left the other with a solo line. Again and again

the anthem was sung and always with the two notes by some other songster.

A little later I heard another sound, a clear musical lilt, and looking out, I saw the bright orange colors of the oriole as he sang, then flitted among the boughs of a spreading willow tree.

A group of goldfinches, with their brilliant yellow suits, so picturesquely trimmed with black, chased each other among the branches of an apple tree.

Yellow hammers loitered among the cherry trees as if to see whether there were any of their favorite dainties left.

A pair of kingbirds searched among the boughs for a suitable location for their future home, or darted after an unsuspecting bee or fly.

A meadow lark, not to be outdone, perched on the fence and gave forth its favorite four-toned call.

A little later, I went to visit the nests. I found the modest ground sparrow covering her five eggs at the root of a currant bush, eggs, bird, nest and surroundings a perfect harmony. The robin's nest, that yesterday was full and slightly tilted one side from the slender limb of a young cedar, had toppled over and no signs of the four young birds, whose yellow throats were always open for the many meals, brought by the industrious parents. One of them is all I have discovered, but no doubt, others are safely sheltered until they grow accustomed to their untried wings.

The blue bird sat snugly hidden on her nest in a hole in an apple tree, part of her head being all I could manage to see, as I peeped down the opening. Her mate seldom went far from the neighboring trees.

A little farther afield, a pair of brown thrushes passed to and fro in their calm, leisurely manner among some shrubs, and on my return, I found a pair of phoebes choosing the shelf above the front door, beneath the porch, as the foundation on which to build their summer home.

Even the English sparrow seems less aggressive these days, and even he can introduce a note or two in his plaintive love tones, that is really musical.

The scolding of the black birds is not often heard this year, owing to the absence of a row of tall ugly poplars, which was formerly their favorite nesting place.

Again, when the work of the day is over, the birds re-assemble in surrounding trees and I notice they prefer the evergreens, and give forth their evening praise. The robin tries to surpass his efforts of the morning and his is really the principal voice, but one after another of the lesser singers take up their parts with force and sweetness, and even when night has drawn its sable mantle close, one

hears still, a gentle murmuring song, as though the singer were a long way off. One thinks that all is still, but there seems yet an echo of the closing chorus.

There comes over one
"A feeling of sadness and longing
That is not akin to pain
That resembles sorrow only
As a mist resembles rain."

A longing for the power to interpret aright the meaning of this mysterious music. Sadness that one should be powerless to reproduce it on man-made instruments, or with the human voice.

M. E. Graham.

Hints by May Manton.

WOMAN'S TUCKED "GIBSON" WAIST,
4123.

To Be Made with or without the
Fitted Lining.

"Gibson" waists with their broad shouldered effects, appear to gain favor and adherents week by week. This, the latest of the many sorts, includes many desirable features and suits many materials.



4123 Tucked Gibson Waist,
32 to 40 Bust.

The tucks render it becoming to those who object to the plain fronts and the new cuffs give a dainty and satisfactory finish at the wrists. The original is made of white Madras and is unlined, but the silks and wools give greater satisfaction when the lining is used, and all cotton and linen fabrics are equally appropriate.

The lining consists of front and back and is smoothly fitted. The waist is laid in deep plaits over the shoulders that extend from the waist line at the front to the belt at the back, and in tucks that are stitched for their entire length. Those at the back are arranged in groups and give a tapering effect to the figure, while those at the front are arranged at each side of the central box plait and provide becoming fullness over the bust. The sleeves are in bishop style with cuffs that are finished with curved roll-over portions. At the neck is a plain stock that can be worn with a tie or covered with ribbon as illustrated.

To cut this waist in the medium size 4 1/4 yards of material 21 inches wide, 3 3/4 yards 27 inches wide, 2 3/4 yards 32 inches wide or 2 1/4 yards 44 inches wide will be required.

The pattern 4123 is cut in size for a 32, 34, 36, 38 and 40 inch bust measure.

The price of above pattern post-paid is only 10 cents. Send orders to The Farming World, Confederation Life Building, Toronto, giving size wanted.

A Modern Resurrection.

A spotted pullet's egg
Escaped the Easter dye;
Escaped the scramble and the boil,
The omelet, poach and fry.

Beneath a mansion house,
Beside a heater pipe—
An incubator snug and warm—
The chick within grew ripe.

His mother happened by;
Out of the shell jumped he,
And crowed, "O cock-a-doodle-
do!"
And "Chick-a-diddle-dee!"

"Why all this hallelujah?"
The chick replied in scorn:—
"Why, I have risen from my tomb
This is my Easter morn."
—Aloysius Coll. in the Sunday Herald.

Some Tried Recipes.

Tomato Soup.—Put one quart can of tomatoes through the colander. Season with salt to taste, add two tablespoonfuls of sugar, a little butter or nut butter, and when hot, thicken with one heaping tablespoonful of flour. Serve hot.

Cream Rice Pudding.—Wash one-fourth cupful of rice, and add to it one pint of rich milk that has been scalded. Also add three tablespoonfuls of sugar, a pinch of salt, and a little flavoring of some kind—vanilla, if desired. Cook in a double baker in a moderate oven for one and one-half hours. Serve hot or cold.

Peach Froth Spongedrops.—Mash one cupful of canned peaches, and press through a sieve. Beat the whites of two eggs until moderately stiff, add one tablespoonful of lemon juice, and continue beating until very stiff. Add next four tablespoonfuls of sugar, and then fold in carefully the peaches. Serve, when ice cold, over sponge cake that has been baked in small cakes by dropping them into gem irons and baking them.

Fruit Sandwiches.—Between slices of bread that have been cut about one fourth of an inch thick, and spread with butter or nut butter, spread a filling made by chopping very fine equal parts of steamed figs and nuts, moistening them with hot water and lemon juice, to form a paste. Dates, raisins, prunes or currants may be used in place of the figs.

Escalloped Potatoes.—Peel and slice the potatoes thin, then arrange in layers in an oiled baking

dish, first a layer of potatoes, then a slight dusting of flour, and potatoes again, until the dish is as full as desired. Over this pour sufficient salted cream to cover, and bake until the potatoes are tender. Add more cream if necessary.

Macaroni Baked with Granola.—Break into pieces about an inch in length sufficient macaroni to fill a large cup, and cook until tender. When done, drain, and put a layer of macaroni in the bottom of an earthen pudding-dish, and sprinkle over it a scant teaspoonful of granola. Add a second and third layer, and sprinkle each with granola; then turn over the whole a custard sauce, prepared by mixing together a pint of milk, the well-beaten yolks of two eggs, or one whole egg, and one-fourth teaspoonful of salt. Care should be taken to arrange the macaroni in layers loosely, so that the sauce will readily permeate the whole. Bake a few minutes only, until the custard has well set, and serve.

Asparagus with Cream Sauce.—Thoroughly wash, tie in small bunches, and put into boiling water: boil till perfectly tender. Drain thoroughly, untie the bunches, place the stalks, all the same way upon a hot plate, with a dressing prepared as follows: Let a pint of sweet cream (about six hours old is best) come to the boiling point, and stir into it salt to taste and a level tablespoonful of flour rubbed smooth with a little cold cream. Boil till the flour is perfectly cooked, and then pass through a fine wire strainer.

Asparagus with Egg Sauce.—Prepare and cook asparagus as directed above. When tender, drain thoroughly, and serve on a hot dish or on slices of nicely browned toast, with an egg sauce prepared in the following manner: Heat a half cup of rich milk to boiling, add salt, and turn into it very slowly the well-beaten yolk of an egg, stirring constantly at the same time. Let the whole just thicken, and remove from the fire at once.—Good Health.

Peace Proclamation.

The Boers seemed but a feeble people when the war started, yet they cost a great empire much trouble to overcome them.

The bores in a woman's life caused by soap adulteration may seem scarcely worth taking into account; but the women who have overcome them by the use of Sunlight Soap know now how real the bores were. Try Sunlight Soap, Octagon Bar, and you will realize a relief from boredom like that experienced by the nation on the announcement of peace.

PAIR

Angora Goats

FOR SALE

H. NEWELL, Kilbride, Ont.

Beat the Bugs
Such things as Codling Moth, Curculio, Green Apple, Beely Bark, San Jose Scale, Blight, etc., can only be defeated by frequent and persistent spraying. *The*

Spramotor
has proven to be the best all round spraying outfit on the market. Was awarded Gold Medal at Pan-American Exhibition, and winner of the Canadian Government Spraying Contest. We mail free, booklet "A Gold Mine on Your Farm." Ask for it. Your dealer will sell you the spramotor, or you can get it from us direct.

SPRAMOTOR CO.
Buffalo, N. Y.
London, Ont.

FITS EPILEPSY

FREE SAMPLE OF LIEBIG'S FIT CURE.

If you suffer from Epilepsy, Fits, Falling Sickness, St. Vitus Dance, or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle with valuable Treatise, and try it. The sample bottle will be sent by mail, prepaid, to your nearest Post Office address. It has cured where everything else has failed. When writing, mention this paper and give name, age and full address to THE LIEBIG CO., 179 KING ST. WEST, TORONTO, CANADA.

We Can Cure any Case of Piles

either chronic or recent, external or internal, blind or bleeding. Our prescription is not new, nor is it untried. No-Chi-Mo-Win (Cree word, "the healing breath") Salve has been known to one family of Indian Medicine Men for probably hundreds of years, and like many of their herbal preparations, has wonderful curative properties. No-Chi-Mo-Win Salve gives instant relief to the worst case of piles. It will cure them more quickly than any other salve or exterior application. No mere external remedy, however, will ever effect a permanent cure. Piles are a disease of the blood, and it is necessary to root out the trouble, or it will occur again. No-Chi-Mo-Win Resolvent will do this. It is a tablet, and is taken internally in conjunction with the external treatment, and the combination is guaranteed to cure. No-Chi-Mo-Win Resolvent strengthens the stomach, stimulates the liver, purifies the blood, causes it to flow rich and strong through the veins, brings back health, dispels morbid affections. We positively guarantee that No-Chi-Mo-Win Salve and Resolvent, in conjunction, will cure you, and will refund your money if you are not satisfied with it.

PILES CURED

No-Chi-Mo-Win is not sold by druggists. We offer it direct to the public. The Salve is 50c. per box; Resolvent, 50c. Complete No-Chi-Mo-Win treatment—Salve and Resolvent—sent postpaid by mail, securely sealed, on receipt of \$1.00.

Chimo Chemical Works, Warton, Ont.

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. McAINSH, — — — PUBLISHER
J. W. WHEATON, B. A. — — — EDITOR

The Farming World is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

Postage is prepaid by the publisher for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

Change of Address—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

Receipts are only sent upon request. The date opposite the name on the address label indicates the time up to which the subscription is paid, and the change of date is sufficient acknowledgment of payment. When this change is not made promptly notify us.

Discontinuances—Following the general desire of our readers, no subscriber's copy of THE FARMING WORLD is discontinued until notice to that effect is given. All arrears must be paid.

How to Remit—Remittances should be sent by cheque, draft, express order, postal note, or money order, payable to order of THE FARMING WORLD. Cash should be sent in registered letter.

Advertising Rates on application.

Letters should be addressed:

THE FARMING WORLD,
CONFEDERATION LIFE BUILDING,
TORONTO.

QUESTIONS AND ANSWERS

The Heaviest Fat Beef

A. B. C., correspondent asks for the weight of the heaviest fat beef animal ever exhibited in this world.

This is somewhat of a poser as we have not kept track of the exhibits of fat heaves in this or any other country. For a couple of seasons there has been an exhibition at the Industrial Fair Toronto a fat steer advertised to be the largest in the world. Its weight was given as 3,000 lbs. or 1½ tons. Whether this is the heaviest on record, we have no means of knowing. If any of our readers can enlighten our correspondent we shall esteem it a favor. The International Stock Food Co., whose advertisement appeared in these columns recently gave the weight of the largest cow in the world as 2,970 lbs. She is a Shorthorn and is eight years old.

More Dairy Syndicates Talked Of.

The Eastern Ontario Dairymen's Association has decided to make a special grant of \$100 (so long as the funds last!) to all groups of from twenty to thirty factories organized into syndicates east of Kingston for the purpose of securing an instructor. This grant might be increased to \$200 providing the factories showed enough interest to take the matter up. The factories would be expected to contribute about \$15 each so as to secure a competent instructor to devote his whole time to the work. The matter was discussed at the Ottawa and Cornwall Cheese Board lately, but definite action will be taken later.

The association could not devote

its surplus funds to better advantage and if the factories could be induced to cooperate and pay a fair share of the cost much better work could be done than by the present system of imparting instruction.

Angora Goats as Land Cleaners

The Angora goat has been found of great value in New Zealand in destroying briars and brambles which are a great pest in that country. Importations of Angoras have been made from South Australia but there has been difficulty in getting a sufficient supply. As has been shown in New Zealand the Angora goat is a very efficient cleaner of underbrush lands and parties with land of this description can make a great success out of this kind of goat.



AN ULELYGRAPH.

Gapes—Cure and Prevention.

I will not go into any theories but give what I know to be a few absolute facts.

The first is, with early chicks, that is, from when the ground first thaws until it dries in mid-summer is the worst time for the poultryman.

The second fact is, they get the gape worm or egg while running on wet ground or damp ground. I believe it has been proven beyond a doubt that the earth worm acts as a medium to keep alive and to convey to the chick the gape worm. Therefore we see any condition of the ground that will bring the worm to the top will endanger the chick if left to run on infected ground, for remember all earth worms do not have gape worms; only those where chicks have run that had the gapes.

My plan is first, one of prevention and that is keep the chicks off infected ground. That can be done by putting them on ground where chicks have not been for the last three years, for I find if chicks are kept off a plot of ground badly infested for three years, there are but very few worms left. But after a few years all the ground near the buildings may become gapy and you must either take them away out in the fields or provide and clean runs for them on the infested ground.

If taken to the fields crows and hawks take so many, unless they are shot off, I think the best plan, and one I have pursued, is to pro-

Fruit.
Its quality influences the selling price. Profitable fruit growing insured *only* when enough actual **Potash** is in the fertilizer. Neither quantity nor good quality possible without Potash.

Write for our free books giving details.
GERMAN KALI WORKS,
93 Nassau St., New York City.

SHINGLES

We Have a Superior Kind

The construction of the locks, or the method of hooking the sheets together on a roof is where our "Safe Lock" Shingle is superior to other makes.

What is so strong as the testimony of others? We mail free our book of testimonials and references; also model sample and catalogue, if you will tell us size and pitch of your roof.

THE METAL SHINGLE & SIDING CO., Limited,
Froston, Ont.

BRANTFORD ENGINES.

AS AND DEAL
ASOLINE
ENGINES

STRICTLY HIGH GRADE.
2 to 25 H.P.

The Perfected Product of Many Years' Experience.
Also Makers of Steel Windmills and Waterworks Outfits, Etc.

WRITE US.

THE SPRAWLOR

Awarded Gold Medal at Pan American Exposition, Adopted by Russian, Canadian, Belgian and Australian Governments, and is used at Experimental College N. Y., N. J., Ind., Ohio, Ill., Pa., Ontario, Manitoba, Quebec, Nova Scotia, Brit. Col. First place ever awarded to any by this class.

Write today for free book on Fruit Tree Spraying. Sprayer Co., Seattle, B. V. London, Can.

vide either brooder houses or pens without houses. I built six pens right on my worst ground. They were twelve feet square. In each I put one-half bushel of lime evenly over the ground. That is enough to thoroughly kill all grass and insects. In each pen I put 50 chicks with three hens or a brooder. I try to have them grow right on for eight weeks, when the pens can be opened and chicks will have free range to finish their growth.

I afterwards built open sheds, facing the southeast, and divided them into pens eight feet wide, putting in from forty to fifty chicks. The sheds face a field now planted to peach trees and beyond them alfalfa clover; but in the fall the chicks go on into the next beyond and on each side. I like the sheds of course much the best for the chicks are protected from the cold winds and above all the rains, and you are also protected while feeding and cleaning.

The chicks in the pens where they cannot get any worms never get gapes, while those put on the outside at the same time and fed the same feed, every one got them and while so small they were all worthless.

Where there are but few worms on the ground and they get them after started in growth, from five weeks to eight weeks old, I make a gape extractor of No. 30 or 33 wire. I like a looped wire above all other things, for if you twist it well while pushing it down, then give the chick time to throw out any blood and worms you fail to catch, yet cut loose, you need not strangle any and you can cut the worms loose as surely as they are there, unless now and then one is way down near the lungs. The way I make them they can be adjusted to suit size of chick.

I never could accomplish anything worth talking about, with lime dust or that class of cures.—Cor. Poultry Monthly.

\$50 Round Trip to California

Chicago & North-Western R'y from Chicago, May 27-June 8. The New Overland Limited, the luxurious every day train, leaves Chicago 8.00 p. m. Only three days en route. Unrivalled scenery. Variable routes. New Drawing Room Sleeping Cars and Compartment Cars, Observation Cars (with telephone). All meals in Dining Cars. Buffet Library Cars (with barber). Electric lighted throughout. Two other fast trains 10.00 a. m. and 11.30 p.m. daily. The best of everything. Daily and personally conducted tourist car excursion to California, Oregon and Washington. Apply to your nearest ticket agent or address. B. H. Bennett, Gen'l. Agent, 2 East King Street, Toronto, Ont.

If you want a harvesting machine that is reliable—one that will work successfully in all conditions of grain—buy the McCormick.

Pine Grove Shorthorns and Shropshires

150 | Our herd comprises over 150 females, including our last importation of thirty head. | **150**

The following celebrated families are represented: **Misles, Nonpareils, Brawith Buds, Orange Blossoms, Butterflys, Lancasters, Secrets, Gilppers, Amaranth, Mayflower, Roan Lady, Minas,** Headed by the famous Marquis of Zinda 157854, own brother to the \$6,000 Marr imported Masie 153, assisted by Sittytan Champion 1660076, Lord of the Manor 166069, and Village Champion (by Scottish Champion). Our new Catalogue will be sent to all applicants. Our flock of Shropshires is a large one, and choicely bred. We have on hand and for sale a grand lot of rams, also a few ewes, all bred from imported stock.

For further information address—
Manager, JOS. W. BARNETT. W. C. EDWARDS & Co, Rockland, Ont.

CHOICE LARGE YORKSHIRES. Herd headed by two Champion, Prize Winning Boars at the Pan American, and three Imported Boars, Prize Winners in Great Britain, and direct from Prize Winning Stock. Sows in Service in herd consist of imported and Canadian Bred, including the following winners at the Pan American, Buffalo:—1st Prize Sow under one year. 2nd Prize Sow under one year. 4th Prize Sow under one year. 5th Prize Sow under two years. 5th Prize Sow in aged class. And Winners at Local Fair in Ontario:—8 Young Boars, three to six months. 10 Young Sows, three to six months. 4 liters, six weeks. One liter is from 1st Prize Sow under six months, and 1st Prize and Champion Boar at Pan American. Four pairs not akir. Prices right.
IRA JOHNSON, BALMORAL, ONT.

THE WONDER OF THE AGE

ALL EYES ARE ON THIS INVENTION

Patented 1895-96 and 1901

HARVESTING PEAS



The Genuine Tolton Pea Harvester With New Patent Buncher at Work

1. Harvesting in the most complete manner from eight to ten acres per day.
 2. Harvesters to suit all kinds of mowers.
- Every Machine Warranted. Our Motto: "Not how Cheap, but how Good."
 No drilling holes in Mower Bar or Inside Shoe. A wrench is all that is required to attach it to any mower. Give your orders to any of our local agents, or send them direct to

TOLTON BROS., Guelph, Ont.

OAK LODGE YORKSHIRES



Years of CAREFUL BREEDING have made the OAK LODGE YORKSHIRES the Standard of Quality for IDEAL BACON HOGS.

The championship against all breeds has been won by this herd for 4 years at the Provincial Winter Fair, on foot and in dressed carcass competition.

Prices are reasonable.
J. E. BRETHOUR, Burford, Ont

AYRSHIRES AND YORKSHIRES

FOR SALE

I have a number of choice cows and heifers, 2-year old heifers in calf, and bull and heifer calves sired by "Blair Athol of St. Annes." Breeders will find this a rare opportunity to get choice Ayrshires at low prices. I have three choice litters of Yorkshire pigs, six weeks old, ready to ship. Quick buyers will get bargains.

JOHN H. DOUGLAS, Warkworth, Ont.

Rapids Farm Ayrshires

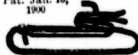
Reinforced by a recent importation of 20 cows, 2 bulls and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at Toronto, London and Ottawa.

Come and See, or Write for Prices

Young Bulls and Heifers for sale, bred from high-class imported stock.

ROBERT HUNTER,
Manager for W. W. Ogilvie Co.,
Lachine Rapids, Quebec

Fat. Jan. 16, 1900



Agents are making as high as \$2 a day selling the **STANDARD SHOCK and FODDER TIE.**

Sells at sight. Write at once for terms and secure choice of territory. Samples free. THE STAN DARD FODDER TIE COMPANY, Waukegan, Ohio



ROCK SALT for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**



LUMP JAW
Easily and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. FREE. A practical, illustrated treatise on the absolute cure of Lump Jaw, free if you ask for Pamphlet No. 27. Fleming Bros., chemists, 26 Front St., West, Toronto, Ont.

BRANT'S OXFORD DOWN SHEEP



Veiling rams and lambs. Ewes all ages. First class stock. All registered. Extra type and style. Prices to suit the times. Brant Stock Farm **J. H. JULL & SON,** Hartford, Ont. Burford Station T. graph & Pho ne

OXFORD SHEEP

Sheep all ages. Shearing Rams for Stock Headers and Ranching Purposes. Yorkshire pigs all ages. Plymouth Rocks.

John Cousins & Sons, Harrison, Ont.



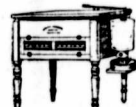
BUCHANAN'S UNLOADING OUTFIT



Works well both on stacks and in barns, unloads all kinds of hay and grain either loose or in sheaves.

Send for catalogue to **M. T. BUCHANAN & CO., Ingersoll, Ont.**

Toronto Incubators



Absolutely self-regulating. Supply their own moisture. Will hatch every hatchable egg. Used by largest breeders. Catalogue free.

T. A. WILLETT,

514 Dundas Street, Toronto

Sugar Beets for Stock.

Dealing with this question the Wisconsin Farmer says:

It is not too late yet to plant a few sugar beets. Those who have never used roots for feeding farm animals have little idea of their great value. Although largely composed of water, yet the nutrients seem to be in a form that is especially suited to the animal's system. The juice seem to have a beneficial effect upon digestion and assimilation.

In many instances a small area of beets will be sown for the purpose of ascertaining the ability of the soil to produce beets of good quality from the factory standpoint. Such seed is usually supplied in small quantities by experiment stations. In some cases we believe that it would be possible to procure a little additional seed from the stations so that a somewhat larger area could be sown and in turn the crop used for feeding purposes.

Land used for beets should be well cultivated on the surface immediately before planting, as it is very important to destroy all forms of weeds. If no other machinery is available for planting, the common drill may be used by stopping up the holes in such a way as to bring the rows about thirty inches apart. Although this is somewhat wider than is commonly recommended for beets used for sugar-making purposes, yet when a crop is to be used as a food for stock the roots will be much more easily handled when the rows are this distance apart.

To compare the beet and mangel crop we may say that the latter will generally yield a few tons more per acre, although they are not so firm and therefore will not keep so well during the winter. The beet crop properly put in will generally yield from fifteen to twenty or even twenty-five tons per acre. We have said in the beginning that it is not too late to put in beets, and we believe that seeding may in many cases be delayed until the first of June or even until the middle of June. The crop is very hardy and will withstand considerable frost, and there is little necessity for harvesting it before November 1st.

Not to be Congratulated.

"I congratulate you, my dear sir, on the marriage of your daughter. I see you are gradually getting all the girls off your hands."

"Oh my hands—yes! But the worst of it is I have to keep their husbands on their feet."

The Captain's Break.

Rich Heiress—But, Captain Hawleigh, would you love me when I grow old and ugly?

The Captain (gallantly)—You may grow old, my dear Miss Plutus, but you can never grow uglier. And he wondered why she rejected him.

True Economy

True economy is not always the saving of the cent that is immediately in sight. Doing so is often "Penny Wise and Pound Foolish." Herbageum will enable the farmer to raise good calves on whey, 50 c. worth of Herbageum will make 1 1/2 tons of skim milk equal to new milk for calves or pigs. If this is not true economy, then true economy is a quality that is very difficult of identification.

That true economy may be practised in this way is amply proven by the following:—"We use Herbageum regularly for our calves with skim milk, and find that it keeps them in really finer tone and condition than new milk without it. Edgar McLean, Mgr. Laurentian Stock and Dairy Farm, North Nation Mills, Que." "We tested Herbageum thoroughly on poultry and got remarkably good results. We also fed it with skim milk to calves, and they did better on that feed than we ever had calves do on new milk. It prevents all scouring. Belyea Bros., Oakville, Ont."

The Use of Whey

As the cheese factories open up for the season's work, the old question of "how best to utilize the whey" comes to the front. Whey alone is so indigestible as to be almost poison to a calf. It invariably causes scours. Herbageum is of very great assistance in this matter, and by using whey that has not become rancid there is no difficulty in raising strong thrifty calves. A tablespoonful of Herbageum added to the whey for three calves will enable them to assimilate the whey and will prevent scouring.

Mr. Henry Bedard of Alexandria, Gleggery County, Ont., writes:—"I have used Herbageum with whey for calves, and they did splendidly." Mr. N. Barrette, of St. Urban, Que., reports that "Results obtained by feeding Herbageum to calves with whey are first class."

One or more stores in almost every town and village in Canada have Herbageum for sale, and it is manufactured at Galt, Canada, by The Beaver Mfg. Co., who will be pleased to mail one of their interesting pamphlets entitled "Take a Pointer," to any one sending them their address.

CANADIAN PACIFIC RY.

WILL RUM
HOME-SEEKERS' 60-day EXCURSIONS
To the Canadian North-West at return fares.

Winnipeg... Waskada... Estevan... Egan... Arcola... Moosomin... Wawanesa... Binocarb... Miniota... Grand View... Swan River...	\$28	Regina... Moosejaw... Yorkton... Pr. Albert... Macleod... Calgary... Red Deer... Strathcona...
		\$30 \$35 \$40

Going JUNE 3rd, returning until AUGUST 4th (all rail or S.S. Alberta). Going JUNE 9th, returning until AUGUST 25th (all rail or S.S. Alberta). Going JULY 15th, returning until SEPTEMBER 10th (all rail or S.S. Alberta.) Tickets are not good on "Imperial Limited." For tickets and pamphlet giving full particulars, apply to your nearest Canadian Pacific Agent, or to
A. H. NOTMAN, Asst. Gen. Pass. Agt.,
 1 King Street East, Toronto

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider best suited to our advertising columns.

Cattle.

During a little outing last week we visited Maple Shade, the home of the Hon. John Dryden. A visit to this well kept and beautifully situated farm at this season of the year is indeed a pleasure. The trees are in bloom, the fields have taken on their brightest green, and the whole realm of nature is redundant with signs of an abundant harvest.

But the fields in all their freshness have no monopoly of the pleasures of a visit to Maple Shade. The splendid herd of Shorthorn cattle and the fine flock of Shropshire sheep claim first attention. There are no better bred Shorthorns in Canada than Mr. Dryden's, and the animals in the stables at the present time would be hard to duplicate anywhere. The whole lot are in splendid breeding condition, showing that care and good feeding have been used in their behalf.

There are two noted bulls at the head of the Maple Shade herd. The older one, Collynie Archer, was bred by Wm. Duthie, and imported by Mr. Dryden in 1898. He was sired by Scotland Archer (59893), bred at Sittyton by Mr. Cruickshank. His dam was Missie 135th by William of Orange, bred by A. Cruickshank. The Missie family is, without doubt, the most valuable of the strains at Uppermill, Scotland, the home of W. S. Marr. This family furnished the highest-priced Shorthorn cow of recent years in Missie 153rd, sold at Chicago in 1901 for \$6,000 to W. C. Edwards & Co. The pedigree of Collynie Archer is identical with that of Marengo, the great sweepstakes bull of Great Britain.

Collynie Archer has done splendid work since coming to Maple Shade. He gets stock of the blocky, squarely-built, straight-back type that are so much in demand to-day among Shorthorn lovers. The larger number of the animals to be offered at the big combination sale at Chicago on June 13th and 14th are got by this bull, and, if we mistake not, will not be knocked down for any small figure, when American buyers get a look at them.

The other herd bull, and he is the younger of the two, is Prince Gloster. He comes of Mr. Cruickshank's celebrated Duchess of Gloster family. He is an all-red bull, bred by S. C. James, of Iowa, and bought by Mr. Dryden in 1900 at a pretty high figure. His breeding is of the highest individual merit. His first crop of calves which are to be seen at Maple Shade to-day, are of uniform excellence. They are as fine a lot of calves as we

have seen anywhere, and if they develop as they have started out, some magnificent types of the breed will be found at Maple Shade in a year or two. Prince Gloster himself has developed well since coming from Iowa a couple of years ago. He is a bull of great substance and thick flesh, weighing as a two-year-old 2,000 pounds.

A beautiful young bull, Prince Victor, by Prince Gloster, calved last October, will form one of the Chicago consignment, which goes forward this week. He should give a good account of himself in the sale ring. Another bull that will be sent over is Bridal Archer, by Collynie Archer. He is about 11 months' old now and has good size and depth.

Mr. Dryden's consignment to the Chicago sale comprises 19 Shorthorns. With the exception of the two already mentioned, and a bull calf catalogued with his dam, these are all females, the bulk of them being yearling heifers. These are nearly all in calf to Prince Gloster, and the whole consignment are of Mr. Dryden's own breeding. They will, therefore, well represent Canada in this important sale. The other Canadians in this sale are W. C. Edwards & Co., Rockland, Ont., and H. M. Cochrane, Hillhurst, Que.

Mr. J. F. Davis, Tempo, Ont., writes: My herd of Shorthorns usually about 20 in all, but reduced by recent sales of young bulls to 15, have come through the winter in good shape and are now on grass and doing well. The herd comprises three families of Bates bred Shorthorns, namely, Royal Duchesses, Roan-Duchesses, and Filligrees.

The Royal Duchess tribe started in 1887 by the purchase of Tulips Duchess 3rd, bred by T.A. Robson, of London, Roan Duchess 52nd, bred at Bow Park, is yet in the herd and was purchased in 1893. Famous of the Filligree tribe by the 51st Duke of Oxford, came from the herd of R. Gibson, Delaware, and was bred by A. J. Alexander, Spring Station, Kentucky.

Sheep.

Mr. Robt. Miller, Stouffville, has recently imported 30 Shropshire sheep bred by Mr. A. E. Mansell. The importation consists of 14 rams and 16 ewes.

Hogs

Attention is called to the advertisement of J. W. Johnston which appears in this issue. Mr. Johnston is advertising large Yorkshires, one of the most desirable breeds for the export bacon trade.

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S

CAUSTIC BALSAM.

*Not genuine without the signature of
The Lawrence, Williams & Co.
Sole Agents for the U.S. & CANADA.*

CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blenches from Horses and Cattle. **SUPERSEDES ALL CAUTERY OR FIRING.** Impossible to produce scurf or blenches. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

STOCK

DAVID McCRAE, Jansfield, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

J. A. RICHARDSON,

SOUTH MARSH, ONT.

BREEDER OF Holsteins, Dorset-Horned Sheep
Tamworth Swine

E. PENNEBECKER,

Fairview Farm Hazelton, Ont.,

BREEDER OF REG HOLSTEINS, STOCK
FOR SALE.

ALVA FARM GURNSEYS

The Typical
Dairy Breed

Good
Animals of
Both Sexes
for Sale



SYDNEY FISHER, Knowlton, Que.

JOHN DRYDEN

BROOKLIN, ONTARIO

BREEDER OF

CRUICKSHANK SHORTHORNS and CHOICE
SHROPSHIRE SHEEP

Choice Young Bulls and Ram Lambs
for sale. Write for prices.

QUEENSTON HEIGHTS SHORTHORNS.

Scotch and Scotch-topped choice young
cows and heifers for sale at moderate prices.

HUDSON USHER,
Queenston, Ont.

OHIO IMPROVED

Chester White Swine

CHOICE PIGS, 6 to 8 weeks old, pairs not akin.
Boars fit for service. Pedigrees furnished.
Price reasonable.

TILMAN E. BOWMAN,
BERLIN, ONT.

**When writing to advertisers
always mention THE FARM-
ING WORLD.**

Don't Overfeed the Brood Sow at the Start

A great many litters of pigs are destroyed or weakened every year by being too kind to the brood sow. The higher priced the hog, the greater the danger of this mistaken kindness. Notice how the brood sow takes care of herself when left to paddle her own canoe. When the trying hour comes, she seeks seclusion in a sheltered place as bright and sunny as she can find and if possible near to grass and water. The third day she may eat a little more grass, but she don't think of going home with her litter and rejoicing the heart of the farmer until the third day.

This is the plainest kind of intimation to the farmer aforesaid that he should heed the counsels of nature and keep away all solid food, and especially all corn, the first, second and third days. If she has been doing well, simply let her alone. Give her a drink of tepid water. If your conscience insists that you shall feed her, then put a little bran in it the second day and nothing more. The third day put in a little more if you want to but do not give her a full feed of any kind until the fourth day, and even then be moderate in your feeding.

What will happen if you think nothing is too good for the brood sow with eight or ten pigs? By overfeeding you will probably produce milk fever. This means that the litter is to be starved, for in that condition the pigs will nurse in vain. It is probable that the sow will die.

Bear in mind that what these little fellows want is warmth, sunlight, and food from nature's fountain. After this period is past, keep them dry, let them have the sunlight, plenty of exercise, and feed the brood sow on a milk ration, some corn, but mostly bran, shorts, or coarsely ground wheat, something that will produce milk and not develop too great a tendency to fattening, for it is not fat that you are wanting now, but frame, health, vitality.—Wallace's Farmer.

"Name the child," said the clergyman.

"Superfluous," replied young Mrs. Verdigris, the mother of the cherub.

"What?"

"Superfluous."

"My dear madam," said the preacher in a whisper, "that will never do. I can't give the baby such a name as that. What suggested it to you?"

"My husband's brother."

"Is he a married man?"

"No sir, he's an old bachelor."

"As I suspected. Madam, we will call this baby 'Blessing.'"

"I've no objection, sir, but I like the sound of the other better."

Little Bertie had been taught not to ask for anything at meals. One day poor Bertie had been forgotten, when he pathetically enquired: "Do little boys get to heaven when they are starved to death?"—Tid-Bits.

BUG DEATH



Kills the Bugs.

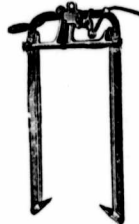
Increases the Yield.

Improves the quality of the Crop.

Send for free Booklet, telling how to use Bug Death. What the results are.

BUG DEATH CHEMICAL CO. LIMITED
ST. STEPHEN, N.B.

Provan's Patent
REVERSIBLE



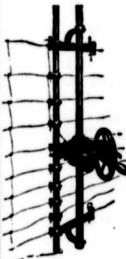
Carriers, Fork and Slings

For Round Iron, Wood, or Angle Steel Tracks

Have now become a standard of excellence with the farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only medal and Dipoma given on Hay Carriers, Forks and Slings, was awarded to us on these Implements. Following is a copy of the Judges AWARD: "For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop block, which enables perfect control of carriage; no springs required for locking car which has motion in all directions; compact form of fork which can be tripped in any position; the car is reversible and of double action; for novelty, ingenuity and usefulness, excellence of material and construction. Manufactured by

James W. Provan, Oshawa, Ont., Canada

Special Discount for Cash. Correspondence Solicited.



HIGHEST QUALITY LOWEST COST

HIGHEST SPEED
EASIEST OPERATION AND ADJUSTMENT
are the Strong Points in the

London Fence Machine

and Fence Woven with It.

No higher quality nor lower cost can be had than with the London. It is beyond comparison ahead of all others for speed, quality of work, and easy adjustment. If you have not yet considered it, write for our catalog and estimates of cost, or wire in 12 styles of fence.

LONDON FENCE MACHINE CO.

London, Canada

Limited.



USE MICA ROOFING For Flat or Steep Roofs. It is Waterproof, Fireproof, quickly and very easily laid, and cheaper than other roofing.

Send for sample to

MICA ROOFING CO., 101 Rebecca Street
Hamilton, Canada.

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto, June 2nd, 1902.

The business outlook continues good. Though trade is quiet in some lines, as is usual at this season, the volume of business being done is large. Speculation in Canadian stock continues active. The money market rules steady at last week's quotations.

Wheat.

On the whole the wheat situation is not as strong as a week or ten days ago. The brighter crop prospects in the West have had a depressing effect on the speculative market Chicago dropping 4c. or 5c. during the past two weeks. There was, however, a little rally early in the week owing to the marked shrinkage in the visible supply in the United States and Canada. Cable reports are easier, and on the whole the market is lower and the Western market reported dull. The local markets are quiet and what little trading there is with the millers who are buying from hand to mouth. Manitoba is quoted here 2c. lower. Red and white are easier at 79c. to 80c., goose at 69c. and spring at 76c. to 77c., at outside points. On Toronto farmers' market red and white bring 79c. to 85c., goose 69c. to 70c., and spring fine about 80c. a bushel.

Oats and Barley.

The oat market rules steady under a good demand at from 45c. to 46c. at outside points. On the farmers' market here oats bring 49c. to 50c. per bushel.

The market for malt barley rules strong. On Toronto farmers' market the prices are 54c. to 60½c. for malt, and 53c. to 54c. for feed barley per bushel.

Peas and Corn

The market for peas is easier, quotations here being 75c. to 76c. at outside points, and 84c. on the local farmers' market.

In keeping with the lowering of other grains in the West, corn rules lower at Chicago. The market on this side is, however, firm, and Canadian is quoted here at 62c. to 63c. in car lots west.

Bran and Shorts

Bran supplies keep scarce. At Montreal bran sells for \$19.50 to \$20, and shorts at \$22.50 to \$23, in car lots. City mills here quote bran at \$19.50 and shorts at \$21.50 in car lots f.o.b. Toronto.

Potatoes.

The potato market is quiet and easier. There has been a sharp de-

SEEKING AN INVESTMENT?

If you have money you wish to invest safely we should like you to consider our

FOUR PER CENT. BONDS

They are much in demand by prudent investors who prefer unquestionable securities for their capital. We shall be pleased to send a Specimen Bond and all information on receipt of address.

Head Office:

TORONTO ST.,
TORONTO

The Canada Permanent and Western
Canada Mortgage Corporation.

cline in the New York market which has affected the market on this side. Car lots are quoted at Montreal at 85c., on track, and here at about 70c. On Toronto farmers' market, potatoes bring 90c. to \$1.00 per bag.

Beans continue steady at from \$1.18 to \$1.20 for primes in large lots.

Hay and Straw.

There is little if any change in the hay market. The English market is not so brisk, though trade on this side keeps active. At Montreal quotations for car lots on track are, No. 1 timothy, \$9.50 to \$10; No. 2 timothy, \$8.50 to \$9; clover mixture, \$8.25 to \$8.50, and clover \$7.50 to \$8 per ton. At country points east, car lots have sold at about \$7.50 f.o.b. Here values are slightly higher at \$10.25 to \$10.50, for car lots of baled timothy. On Toronto farmers' market, timothy sells at \$11 to \$13, clover \$8 to \$10 and sheaf straw at \$8 to \$9 per ton.

Eggs and Poultry.

The egg market rules strong under large buying for English account. Prices are very firm and there does not seem to be any prospect of prices coming down. There is a shortage in the crop, and increased home consumption; some Ontario dealers and country storekeepers are offering to buy all the eggs they can get at 13½c. cash, and 14c. trade. These are high prices for this season of the year, and fully 3c. over what was paid last year at this time. Montreal quotations are 14½c. to 14¾c., in case lots. The demand here is strong and offerings large. Fresh eggs sell readily at 14c., in case lots. On Toronto farmers' market new laid bring 13c. to 14c. a dozen.

The Canadian Produce Co., Ltd., 36 and 38 Esplanade St., East, Toronto, will pay until further notice for live chickens, 8c.; for

ducks and turkeys, 11c.; for geese, 6c. per lb. All must be young birds. For hens 4c. per lb. Dressed poultry, dry picked except hens, ½c. lb. higher. Broilers under two pounds in weight 20c. per pound. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c. per 100 lbs. of chickens. No thin birds will be taken.

Cheese

The cheese markets have dropped from 1½c. to 2c. a lb. during the past ten days, and values are now down to a normal basis. The season opened with abnormal prices for fodder cheese, and it was expected that a drop would come sooner or later. In a week or two full grass cheese will be offering when we may expect a firmer and, perhaps, higher market. England is having a very backward season, and it is expected that the home make will be short, so that the Old Land will likely want all the Canadian cheese we can make. But it will not do to boom prices too high on that account, as the English dealer, as he did last fall with some success, may play a waiting game and only buy as he wants the cheese for immediate consumption. The English market shows a decline during the week but with good demands at the lower values. Montreal quotations are 10c. to 10½c. for Ontario, and 9½c. to 9¾c. for Quebec cheese. 9¾c. to 9½c. have been the ruling prices at the local Ontario markets during the week, a big drop from a couple of weeks ago.

Butter

Butter shows a further decline, though there is a lot of enquiry for June butter so that when it is put on the market we may look for a stiffening of values. A considerable improvement in the quality of Canadian butter is reported.

POULTRY, BUTTER AND EGGS

We will be pleased to receive shipments of Poultry (dressed or alive), Butter and Eggs in any quantity, and will forward, upon application, empty crates and egg cases. Payments weekly by Express Order.

Toronto Poultry and Produce Co. - Office, 470 Yonge St., TORONTO

WANTED—BUTTER, POULTRY, EGGS

We have a large outlet, having Twenty-one Retail Stores in Toronto and suburbs.
Payments weekly. Established 1884.

The WM. DAVIES CO., Limited

Head Office—Retail Dept.

Correspondence invited. 24 Queen St. West
TORONTO

The Trade Bulletin has this to say of last week's trade:—

At Bedford, P.Q., on Tuesday, saltless creamery sold at 19½c. and finest salted at 19c. to 19½c., a good portion of which was taken for export. On this market, sales of finest salted butter have been made at 19½c., with sales of saltless at a fraction more money. There has been quite a drop in dairy butter, Eastern Townships and Morrisburg having sold at 16½c. to 17c. Judging from private advices received by last mail, Canadian butter will receive a fair share of attention in the English market this year, enquiries having already been made for firm offers on Cune creamery; but shippers here say they do not care to quote ahead. A few small orders have been taken on best terms."

Creamery butter rules steady here at 19c. to 20c. for prints, and 18½c. to 19c. for solids. Choice dairy tubs sell at 14c. to 14½c., and pound rolls at 15c. to 16c. in jobbing lots. On Toronto farmers' market pound rolls bring 14c. to 16c., and corks, 12½c. to 14c. per pound.

Wool

So far as Canada is concerned there is nothing new in the wool situation prices remaining the same as a week ago at 12c for fleece and 7c for unwashed. The American Wool Reporter in regard to the European markets says:

"Europe is evidently to-day a believer in better prices for wool, which is indicated not only by the firm tone of the London auction sales, but also by a very perceptible hardening in the price for tops in Bradford, where something of an excitement in this commodity has been witnessed lately."

A Boston report of May 27th states that though trading has been irregular the market is more active than for a month past. Sales have been chiefly for immediate use.

Cattle

The cattle market has ruled steady during the week at about last week's quotations. Cables are reported steady. At Toronto cattle market on Friday the run of live stock was not large, comprising 680 cattle, 758 hogs, 340 sheep and lambs and 90 calves. Trade was fairly good and in about the same condition as it had been during the early part of the week. Prices ruled about steady with butchers' cattle higher. One choice load of exporters from Scarborough, sold at \$6.70 per cwt. less \$5.00 on the lot. This shows that when

Please Mr. Druggist give me what I ask for—the one Painkiller, Perry Davis, I know it is the best thing on earth for summer complaints. So do you. Thank you! There is your money.



This is the Page Standard II Bar Fence, made of "Page" wire which is twice as strong as common wire. The continuous coil, note wavy appearance, allows for expansion and contraction which is important owing to Canadian climate. Our upright wires are in one piece and have strength of about 500 pounds. If made of pieces spliced at each horizontal, they would have a strength of only about 300 pounds. We also make gates, ornamental fences, poultry netting, nails and staples. The Page Wire Fence Co., Ltd., Ed. Walkersville, Ont. 61

real choice quality is offered considerably over the regular market quotation is obtainable. In the regular classes prices for exporters ranged from \$5.75 to \$6.25 per cwt. but the bulk sold at \$5.85 to \$6.12½ per cwt. Picked lots of butchers' cattle for export sold at \$5.50 to \$5.80 and picked butchers' at \$5.40 to \$5.50 per cwt. Feeders and stockers sold readily at quotations. Few milk cows are coming forward and prices are firm. In all lines good quality is in demand and will command high prices.

Export Cattle.—Choice loads of heavy shippers are worth from \$6.00 to \$6.40 per cwt., medium exporters \$5.60 to \$5.90. Heavy export bulls sold at \$4.75 to \$5.75 and light ones at \$4.25 to \$4.35 per cwt., choice export cows sold at \$4.65 to \$5.00 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at \$5.50 to \$5.80 per cwt. Choice picked lots of butchers' heifers and steers, 925 to 1,025 lbs. each sold at \$5.40 to \$5.60, good cattle at \$5.25 to \$5.50, medium at \$5.00 to \$5.25 and inferior to common at \$3.75 to \$4.50 per cwt. Loads of butchers' and exporters' mixed sold at \$5.25 to \$5.50 per cwt.

Feeders.—Light steers, 900 to 1,000 lbs. each sold at \$4.25 to \$5.00 per cwt.

Stockers.—Well bred young steers weighing 400 to 850 lbs. each sold at \$3.50 to \$4.40, and off colors and those of inferior quality at \$2.75 to \$3.00 per cwt.

Calves.—At Toronto market good to choice calves bring \$4.00 to \$6.00 per cwt. and \$2.00 to \$10.00 each.

Milk Cows.—These sold at \$30 to \$50 each.

Sheep and Lambs.

The sheep market rules steady at \$4.00 to \$4.50 per cwt. for ewes and \$3.00 to \$3.75 for bucks. Yearling lambs sold at \$5.00 to \$5.50 per cwt. and spring lambs at \$2.50 to \$5.00 each. At Buffalo on Friday top lambs sold at \$7.10 to \$7.25 and fair to good at \$6.50 to \$7.00 per cwt.

Hogs

The hog market dropped 25c as we indicated last week and it looks now as if there may be a further drop shortly. Best select bacon hogs sold at \$7.00 and lights and fats at \$6.75 per cwt.

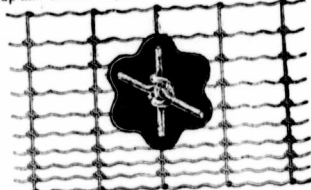
For the week ending June 7th, the Wm. Davies Co., Toronto, will pay \$6.87½ per cwt. for select bacon hogs, \$6.62½ for lights, and \$6.62½ for fats.

The Trade Bulletin's London cable of May 9th, re Canadian bacon, reads thus:

"The market is still in an unset-

Ideal Woven Wire Fencing Complete in the Roll

A heavy one-piece stay that will not buckle up and cannot slip. Note the lock. No. 9



hard spring wire throughout. A fence that will last.

MCGREGOR, BANWELL FENCE CO., Limited

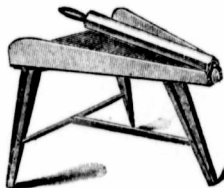
Windsor, Ont

Coiled spring and other fence wires.

TRADE "DAISY" MARK

Can be fitted with adjustable Brakers as shown in cut.

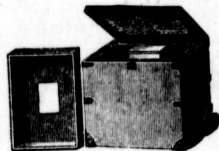
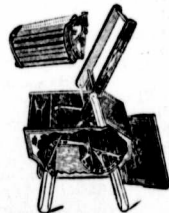
NOTICE—Two bolts only to place to set up. Our new improved Steel Stand. Tempered Steel Cased Bicycle Ball Bearings, with four nicely fitted wheels, adjustable feet for holding it firm when churning. Over 80,000 in use.

**EVERY BUTTER WORKER**

Neatly made, simple, strong, and durable and cheap. Prices given on application.

VOLLMAR**IMPROVED****PERFECT****WASHER.**

Will wash more clothes in less time, do it better and easier, with less wear and tear, than any other machine.

**BUTTER SHIPPING BOX.**

Convenient, durable. Made with Detachable Hinges and movable ice box. Will give prices and fuller particulars on application.

The WORTMAN & WARD MFG. CO., Ltd.,

London, Ont.

Faern Branch, 60 McGill St., Montreal, Que.

ted condition, and prices have been shaded another shilling for Canadian. Receipts from the United States are heavy."

Horses

Business at Grand's last week was dull. Very little trading was done and prices were lower. The races had considerable to do with this dullness and some large consignments were held over till this week when it is expected business will be better.

Sheep Breeding and Feeding

(Continued from page 615.)

be taken when the pasture is poor to supplement this with rape, vetches or other green crop. Beginning eight or ten weeks before the time of slaughter, a grain ration should be added. We feed a mixture of oats, bran, oil cake, peas, increasing the feed and keeping the animals inside the latter part of the finishing period.

Now as to the lambs, we have the breeding ewes in good condition, when lambs are born, then feed the mothers liberally to promote milk production for the benefit of the lambs. We have a place arranged where the lambs may slip through and feed apart from the ewes. They soon learn to eat a mixture of oats and bran with a little clover, pulped roots and clover. The lambs may be expected to fatten when pasture begins, but it is well to continue the extra ration for then when the flocks come into the barn at night. Again any shrinkage should be guarded against when the pasture fails.

"I say, dad, Johnnie Jones' father wouldn't give him sixpence to buy a new fishing rod, and do you know what I said?"

"Nothing wrong, I hope."

"Oh, no! I told him I was glad my dad wasn't so stingy."—Comic Cuts.



Trees! Trees!! Trees!!!

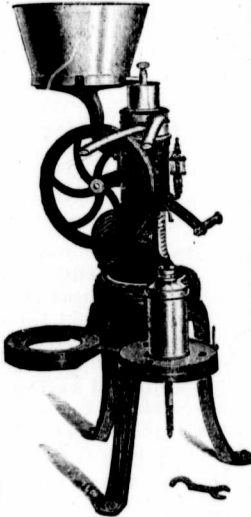
We have a full line of Fruit and Ornamental Trees for Spring, 1902, at lowest possible prices. Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a Catalogue and Price list.

Don't wait until the last minute, as you will be disappointed. Place orders early and secure the varieties you want. Correspondence solicited.

WINONA NURSERY CO., Winona, Ont.

The "NATIONAL" Cream Separator



The "National" is a purely Canadian made machine throughout, which cannot be said of some others. Intending purchasers are invited to call at our factory in Guelph, where they may see the machine and all its parts in course of construction.

Superiority of the "National"

It possesses all the strong points found in other Cream Separators, while it is free from objectionable points that make other machines hard to run, and a source of trouble to those who operate and clean them.

The National is simple in construction, handsome in design, and finely finished; easy to operate, and few parts to clean; a perfect skimmer with a larger capacity than any other separator at the same price. Every machine guaranteed to do good work.

Capacity of No. 1.—330 to 350 lbs. per hour.

Capacity of No. 1 A—450 to 500 lbs. per hour.

Give the "National" a Trial.

GENERAL AGENCIES

Creamery Supply Co., Guelph, for South-western Ontario.
T. C. Rogers Co., Guelph, for Ontario North and East.
Jos. A. Merrick, Winnipeg, for Manitoba and N. W. T.

MANUFACTURED BY

The Raymond Mfg. Co. of Guelph, Limited
GUELPH, ONTARIO.

"HEAD-LIGHT 500's." "EAGLE" in 100's and 200's. "VICTORIA." "LITTLE COMET."

E. B. EDDY'S PARLOR MATCHES

Are put up in neat sliding boxes convenient to handle. No sulphur. No disagreeable fumes. Every stick a match. Every match a lighter.

---- For sale by all first-class dealers. ----

**WOOD ENGRAVING,
PHOTO ENGRAVING,
HALF TONES**
168 BAY ST
J.L. JONES ENG. CO
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**BETWEEN SEED-TIME
AND HARVEST . . .**

Is fencing interval. The "BEAVER DIGGER" is as far ahead of old style post hole apparatus as the self binder is ahead of the cradle. Pays for itself in one day. Address,

HALL & SON,
50 Bay Street Toronto

**Wedding
Gifts**

Can be purchased through the aid of our ILLUSTRATED CATALOGUE with perfect satisfaction. (Copy sent upon request.) Contains illustrations and prices of Cut Glass, Sterling Silver, Clocks, Bronzes, etc.

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MANUFACTURING JEWELLERS & SILVERSMITHS
156 YONGE ST
FACTORY 567 RICHMOND ST. WEST
TORONTO

TO WEAK MEN

The Last Resort Should be the First



Wm. Smith, Queensville, Ont., wrote me the other day:— I have been troubled more or less for the past twenty-five years with rheumatic fever, which has caused me no end of suffering. Three months prior to getting your Electric Belt I was unable to feed myself. My son was also affected with the fever similar to myself, and we both used the Belt and found it just as you represented it in every way. I am very grateful to be able to report to you that I am free from all those pains. Anyone troubled with a similar ailment will not make any mistake in purchasing one of your Belts. If they will be guided by your advice they will certainly be cured. You are at liberty to refer anyone to me and I will be only too pleased to tell them what the Belt has done for me. I might also state that I used a Belt of another make, and it blistered me so that I was unable to wear it, but your cushion electrode is a great improvement on these old back burners. I thank you kindly for what you have done for me.

You may doubt my ability to cure you—and if you have tried other remedies which promised as much as mine, and failed, I can not blame you. You made a mistake, that's all; you resorted to the wrong means of cure at the beginning. You probably knew of no other remedy than drugs; did not know that drugs are good for some cases—mostly fevers and acute diseases—but not for nervous and organic troubles, which are generally of the chronic or "come and go" kind:

I fail to convince some people because they will not use their own intelligence. I don't ask you to take my word only. I give you references to people who were as you are to-day, and are cured. I also explain how you will be cured—give you tests of the means of cure. When you see how the cure is made it will appeal to your common sense. There is no mystery about it, like there is about drug prescriptions in a dead language to cover up what is being done. You will know why and how you will be cured, just as I know. You will regain your confidence because you will understand the matter as well as I do. Then, after you are cured, you will tell others to quit drug treatments, and use Nature's Remedy—Electricity. You will say like

Fred Hooper, Agawa Bay, Ont. (Camp No. 1):—The Belt has done me more good than all the medicine I have ever taken. My bowels move regularly once a day. I sleep sound and eat three hearty meals a day, something I could not do before I used your Belt. The Belt is worth three times what I paid for it, to me at least.

DR. McLAUGHLIN'S OFFER

My confidence in my method enables me to offer to any man or woman who are suffering from weakness from any cause, if they will give me evidence of their honesty by offering me reasonable security they may use the Belt at my risk and

PAY WHEN CURED

Now, what my Belt **Ontario Agricultural Coll.** and Rheumatism it does for Weak Men and Women, and all who are afflicted with Nervous and Muscular Diseases, or Stomach, Kidney and Bowel Troubles. It renews the vigor of youth in Weak Men and Women until they feel it dancing through the veins and in every organ of the body. I can give you proof of all this if you will call and see me, or if you can't call, send to me and I will send my beautifully illustrated 80-page book for men (I have one for women too), free and sealed. Don't delay. It will save you money and pain and weakness.

FREE TEST

I will give a free test to every seeker of proof of what my Belt does. Call if possible and I will explain my method thoroughly to you. Consultation free.

Dr. B. A. McLaughlin, 130 Yonge St., TORONTO, Ont. OFFICE HOURS 9 a.m. to 8.30 p.m.