

# The Farming World

A PAPER FOR  
**Farmers and Stockmen**

## Your Ads



Should  
Make  
More  
Noise

Than  
A  
**Big  
Drum**

They will, too, if you  
Allow us to make suitable

**ENGRAVINGS**

**We make them**

for every purpose, and all kinds  
of paper.

**Moore & Alexander**  
ENGRAVERS and  
DESIGNERS

16 Adelaide St. W., Toronto



### DR. HESS' STOCK FOOD

Is a guaranteed flesh producer

It makes animals eat well, do well and pay well. It produces that sleek, glossy coat that commands the fancy price. Cows fed DR. HESS' STOCK FOOD give more and richer milk. Make a test—your money back if it don't do what we claim.

1 lb Sack, 50c. 12 lb Sack, \$1.00.

Sold by dealers generally, or address, THE GREIG MFG CO., Canadian Agents, Montreal. For a two-cent stamp we will mail you our 64-page veterinary book. Address.

**DR. HESS & CLARK,**  
Ashland, O., U.S.A.

Horse Owners Should Use

GOMBAULT'S

## Caustic Balsam

The Great French Veterinary Remedy.

A SAFE, SPEEDY AND  
POSITIVE CURE.



Prepared  
exclusively  
by J. E.  
Gombault  
ex-Veterinary  
Surgeon to the  
French  
Government  
Stable

**SUPERSEDES ALL CAUTERY OR FIRING**  
Impossible to produce any scar or bluish. The  
safest, best Blister ever used. Takes the place  
of all liniments for mild or severe action. Removes  
all Bunches or Blenches from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism,  
Sprains, Sore Throat, Etc., it is invaluable.

**WE GUARANTEE** this one tubercular of  
any liniment or specific cure mixture ever made.  
Every bottle of Caustic Balsam sold 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 descriptive circulars,  
testimonials, etc. Address

**THE LAWRENCE-WILLIAMS CO., Toronto, Ont.**

## Make Money



White Wyandottes, general  
purpose fowl. Large brown  
eggs. Per setting . . . \$1.50

S.C. White Leghorns. The  
greatest egg producers.  
Large white eggs. Per  
setting . . . \$1.50

Barred Plymouth Rocks.—We regret  
we will be unable to accept any more  
orders for eggs from this strain on account  
of the heavy demand for these eggs and  
having accepted as many orders as it will be  
possible for us to fill this season.

Note—We beg to notify farmers that we are  
purveyors of turkeys, chickens, ducks, and geese, and  
will give full market price for first-class poultry. We  
will send empty crates to the nearest express office  
and pay express charges both ways, remitting immedi-  
ately on receipt of the birds in full payment. We  
will be pleased to hear from any having marketable  
birds, and will quote prices by return mail. Address

**The Toronto Poultry Company**  
LIMITED

J. M. WILSON, Manager.  
Davisville P.O., Ontario

**INCREASED CAPACITIES.**

**1901 Improved Alpha De Laval Baby Separators**



The Baby Separators have now their respective capacity increased as follows: Milk Per hour. Price.

|               |                     |                    |         |
|---------------|---------------------|--------------------|---------|
| Humming Bird. | instead of 225 lbs. | now skims 250 lbs. | — \$ 65 |
| Baby No. 1    | .. 375              | .. 450             | .. 100  |
| Baby No. 2    | .. 450              | .. 600             | .. 125  |
| Baby No. 3    | .. 850              | .. 1000            | .. 200  |
| Dairy Turbine | .. 850              | .. 1000            | .. 225  |

30 TO 35 P.C. MORE CAPACITY. NO INCREASE IN PRICE.  
The same standard of Alpha well-known closest skimming is preserved. Apply to local agents, or to

**Canadian Dairy Supply Co.,**  
327 Commissioners Street, Montreal.

**SHEPHERDS**

**X**



**SHEEP DIP**

Kills Lice and Ticks, destroys all disease germs. Disinfectant and antiseptic. Is healing. Prevents and cures skin diseases.

Having so much confidence in this preparation we will give to any farmer who personally brings this advertisement to our warehouse a full-sized bottle for trial.

Any Dealer who has not got it in Stock can get it for you from us.

Put up in Qt. Bottles. Price 25 Cents. Manufactured by

**THE LYMAN BROS. & CO. Limited,**  
Wholesale Druggists,  
71-73 Front Street, Toronto.

**THE MAN OF DESTINY**



Is not so much the man who is especially favored of fortune as he is the man who is capable of compelling all the forces bearing upon his line of work to contribute to his success.

The ability to recognize and appropriate the sources of power or of profit is the ability that wins.

To succeed in the creamery business is to make the most butter and the best butter from a given quantity of milk. This cannot be accomplished without proper machinery properly handled. More depends upon the cream ripening probably than you think.

**The Farrington Cream Ripener**

Absolutely controls this process. You will find that with this machine you can make more and better butter. To complete the equipment of your plant and add another item to your list of success promoting agencies you should purchase one of these Ripeners at once. Write for more information.

**CREAMERY PACKAGE MANFG. COMPANY,**  
COWANSVILLE, QUE.

Bollers and Engines, Australian Boxes, Refrigerator Machines, Hansen's Butter and Cheese Color and Rennet Extracts, Wells, Richardson & Co.'s Improved Butter Color, Spruce Tubs, Stearn's Style Spruce Tubs, Victory Combined Churn and Worker, Ideal Skim Milk Weigher.

**CANADIAN PACIFIC RY.**

WILL RUN  
**Special Land-Seekers' Excursion**  
TO **TEMISKAMING**  
—ON—  
**TUESDAY, MAY 28th**

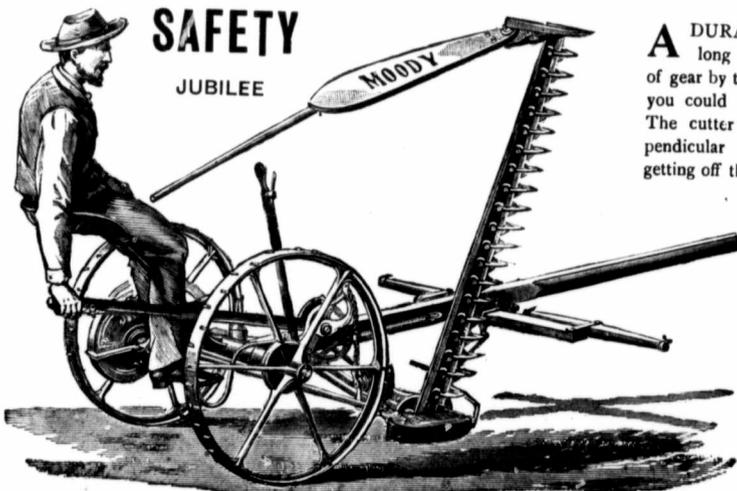
Rate Toronto to Temiskaming, \$7.30  
Correspondingly low rates from other stations.

Tickets, good going on regular train leaving Toronto 9.00 a.m. Tuesday, May 28th, good for return until June 12th, 1901, may also be obtained on presentation of certificate signed by Mr. Thomas Southworth, Director of Colonization, Parliament Buildings, Toronto.

Further particulars can be obtained from any agent, or  
**A. H. NOTMAN,** Asst. Genl. Passenger Agent,  
1 King Street East, Toronto.

**SAFETY**

JUBILEE



**A** DURABLE mower having a long pitman. Can be put out of gear by the lift lever quicker than you could say "Jack Robinson." The cutter can be raised into perpendicular position without driver getting off the seat and it goes automatically out of gear when being so raised and goes into gear again automatically when lowered to its work. The best mower on earth—is not too much to say.

**Labor Saving Farm Machinery**

**MATTHEW MOODY & SONS, - Terrebonne, Que.**

# The Farming World

For Farmers and Stockmen

VOL XVIII

MAY 7th, 1901

No. 37

## A Day at the College



NOTHING is more delightful at this season of the year than a trip in the country. The meadows are quickly taking on their carpet of green, the trees are budding, and everything indicates a new creation and a new activity that is inspiring and helpful. One of these trips we had the pleasure of enjoying last week while on a flying visit to the Ontario Agricultural College at Guelph. The growth so far this season has been exceedingly rapid, and, consequently the College campus is enswathed in the brightest green, while the adjacent fields are being made ready for the cereals, fruits, vegetables and flowers, which are grown in great abundance and variety on the College farm. It was indeed a pleasant outing that anyone might well make considerable sacrifice to secure.

The College is marking the first year of the century by entering upon a new era of activity and usefulness. The term just closed has been the most successful in its history, more students having attended than ever before. But if we mistake not, much greater things are ahead. The plans for the new Massey hall, which will contain the library, museum and convocation hall are completed, and work will be begun very shortly. The new physical and biological laboratories are also expected to be completed before the fall term begins. The erection of these two buildings will supply a long-felt want at the College, and make room in the main building for the accommodation of fifty more students.

As compared with the winter months, when there are a couple of hundred students around, things seem rather quiet about the College; and yet there is no loitering on the part of the staff, every member being busy arranging plans for, or starting, experimental work along lines that cannot but be useful and valuable to the farmers of the country. On arrival at the College we found Dr. Mills making his morning rounds, and noting what is being done in the various departments of the College. The Doctor makes it a point to keep in active touch with what is going on, and to do this in connection with an institution that is every year widening its scope of work and usefulness, is no easy task. Still he is looking hale and hearty, with many

years of active service before him. It is worth noting, that, with the exception, perhaps, of the worthy President, each member of the staff is on the sunny side of life, with practically his best years before him. This means considerable to the Province, as it should bring continuity and completeness in experimental work, etc., on lines best adapted to the needs of agriculture.

We found Dr. Shuttleworth absent, selecting plots in different sections of the country where farmers have decided to experiment in growing sugar beets during the present season. Beets will be grown in fifteen sections by at least twenty-five farmers in each district, making upwards of 400 farmers in all. His assistant, Mr. R. Harcourt, had also been lending a hand, having visited Clinton early in the week on the same mission. Prof. Day was busy as usual. The seeding operations are over, with the exception of the pea crop. Prof. Day has been making some purchases of pure-bred stock recently. The most noted of these is the Short-horn bull, Sittyton Conqueror, purchased from H. Cargill & Sons, Cargill, Ont. This bull was imported in dam, and is of the Cruickshank Amaranth family on his dam's side. He was sired by Babton Conqueror, a special favorite in Dean Willis' herd, and sold for a long price to go to South America. The two Short-horn heifers, purchased from A. W. Smith, are also doing well, and will add materially to the standing of the College herd. The other breeds in the College barns are looking well. Prof. Day is the possessor of a pair of twin Hereford calves of which he is very proud. But he is not alone in his glory, as Prof. Dear has a pair of grade Holstein twins in the dairy barns.

A busy man at the College is Mr. C. A. Zavitz, experimentalist. He, however, is taking a well-earned holiday, and will spend the most of the summer in Europe. He sails on Wednesday of this week. His plan is to begin with Italy and follow the harvesting of the crops through France, Germany to England and Scotland. He has promised the readers of *The Farming World* a few notes of what he will see while on his trip. Prof. Harrison, we found in the midst of microscopes and micro-organisms. These latter have the habit of congregating around a bacteriologist to be identified. The department over which Mr. Harrison has charge is in a position to render valuable assistance

to dairymen this season, and cheese and butter makers and farmers are urged to send samples of bad-flavored cheese, butter or milk to the laboratory for the purposes of investigation. Prof. Harrison is at work just now upon some samples of cheese from the Ingersoll district, containing a flavor peculiar to that locality. Prof. Reynolds' work will be disturbed somewhat this season, owing to the fact that the physical laboratory in the main building is being taken out, preparatory to making new dormitories. The Hessian fly will engage the attention of Prof. Lochhead during the next few weeks. This pest has become a serious menace to cereal crops in the country. It is Mr. Lochhead's intention to spend considerable time this season in obtaining further data as to its life history and means of eradication. Horticulture is an important branch at the College, and is becoming more so. Prof. Hutt was in the midst of his transplanting and seeding arrangements. The Conservatories were filled with flowering plants of every description. The one containing the tropical plants is most interesting to a dweller in this northern clime. Here we saw bananas growing and producing fruit, while edible dates were found ripening as they do in the sunny south.

Across the road from the College proper are the dairy and poultry departments. Here Prof. Dean and Mr. Graham hold sway and deal out valuable information on these important branches of agriculture. Prof. Dean has planned a series of valuable experiments this season. He is conducting an experiment in curing cheese at 65 degrees, and at near freezing (about 34 degrees). Four cheese are made alike. One is immediately put in the refrigerator. The balance are kept at 65 degrees and taken out one each at the end of one, two and three weeks and placed in the refrigerator. Other experiments, such as curing cheese in light and dark curing-rooms, will be conducted. In butter-making experiments are being conducted in pasteurizing the milk at 140, 160, 185 and 195 degrees. In these experiments Prof. Dean has the assistance of the chemical and bacteriological laboratories in his investigations. Mr. Graham, the poultry manager, we found in the midst of his numerous and seemingly happy family. He has begun a most interesting experiment to ascertain the cost of producing summer eggs. During the two weeks the experiment has been running Mr. Graham has got the cost down to less than 5c. per dozen. He has promised to send us a report of this experiment every two weeks as it progresses through the season.

And thus we spent a most profitable day only too quickly. While viewing some Buff Orpingtons, the favorite fowl in Australia and England, our car arrived and we were forced to bring our delightful visit to a close.

## Is the Breeding of Remounts Profitable?

This is a question that is agitating the minds of horse-breeders in Great Britain, and is not without interest to Canadians. The large demand for both cavalry and artillery horses for South Africa has caused the War Department to look abroad for supplies. Upwards of 3,000 horses were purchased in Canada last year for

this purpose and this spring an additional order has come. Besides, the probability of permanent army remount depots being established in this country gives this question additional importance.

In England the breeding of cavalry remounts has not as a rule been remunerative to the farmers. One of the principal reasons for this is that horses must be kept until they are five or six years old before the army agents will look at them, and then the Government prices have never exceeded from £38 to £48 each. It is also claimed that to breed for a market where there is a margin of only two inches between the extremes of height, must evidently produce a large proportion of over or undersized horses which would have to be disposed of in chance markets, thus entailing a loss for raising them. Because of these drawbacks, the English farmer has never taken up the breeding of army remounts in a systematic way, preferring, where conditions are suitable, to breed cart horses and other kinds which brought in more money.

But the South African war has brought about a changed condition of things which may cause the home Government to alter completely its system of horse supply, which has been so generally condemned by everyone who has paid attention to the subject for many years past. The different horse societies have taken the matter up, and among them the Hunters' Improvement Society, which has made several suggestions along the line of putting the system on a basis that would encourage farmers to take up the breeding of remounts on a larger scale. One suggestion is to largely increase the number of King's premier stallions, to be stationed all over the Kingdom. But this would require a large amount of money which, under present conditions, is not likely to be available. Another suggestion is for the Government to purchase the horses at an earlier age, and place the three-year-olds on farms of their own till old enough for service. It is likewise suggested that the animals be kept on the farms of the breeders at £10 per annum, at the risk of the Government, the inference being that to be able to get paid for horses at three years old would cause more farmers to take up the breeding of remounts.

The experience in South Africa has shown that the Suffolk cart horses were among the best adapted for artillery purposes. Mares of this breed, when sired by a thoroughbred stallion, have been known to produce excellent hunters and might be utilized for raising army remounts of the right kind. Some well-known English authorities, such as Sir Walter Gilbey, are of the opinion that the near horse of the future will be of lower stature than the standard set up by the army authorities, and as these have often been found more serviceable in the field than taller ones, the Government may not be so exclusive in the purchase of army horses.

It is evident that light horse breeding, or at least the kinds available for army purposes, is in a state of decline in Great Britain, and unless something is done there will be fewer available horses every year. But there seems to be good reason for altering the present standard along the lines suggested. If this is done, a larger supply of war horses will, no doubt, be available at home, which might lessen the number required from abroad and from Canada. Yet a widening of the standard

would, no doubt, help the industry here as it would there. With a little more latitude in the style of horse required, Canadian farmers should be in a position to produce army horses cheaper than those of the Old Land, and still make a profit.

## Education in Rural Schools

In a note referring to manual training a couple of weeks ago we stated that Sir Wm. Macdonald might probably undertake a similar work for the purpose of improving the methods of teaching in our rural schools. It has been felt by educationists with whom Sir William has been in association that elementary education in our rural schools is defective, inasmuch as it fails in a large measure to train the powers of observation of the children. It teaches them book learning, but fails to give them knowledge at first hand. In Germany and Switzerland and in some parts of England, a system of education is in vogue in the rural schools whereby the pupils are given an intimate knowledge by practical demonstration of that which concerns the dwellers upon farms so intimately—the methods of plant life. It is believed that if the children were taught to observe closely the processes of nature that are going on all around them and all that is implied in such a knowledge they would be far better equipped than they now are for the battle of life and would be far more likely to stay upon the farm than is now the case, when educational methods seem designed to attract the children from the farm to the city. In Germany the results of teaching along these lines have been most fruitful in producing not merely good farmers, but in so training the powers of observation of the children that they learn rapidly any other branches of knowledge which they may pursue.

Of course any improvements of the public school system of Canada along the lines indicated can only be accomplished by working with the Provincial machinery. It is probable, if Sir Wm. Macdonald's ideas find fulfilment, that expert teachers will be brought over from England or the continent, and, with the concurrence of the Provincial authorities, given supervision over a group of rural schools. By this means, if the system possesses all the advantage claimed for it, a force of public opinion would be created within a few years in each Province which would compel the educational authorities to make a general application of the system.

## The Cure of Milk Fever

In a bulletin recently issued by the Rhode Island State Board of Agriculture, Mr. Obadi-ah Brown, a member of that Board, gives his experience with milk fever as follows:

My experience has been confined to my herd and to some of my neighbors' cows. My treatment is with laudanum and spirits of sweet nitre. When the cow is first taken, I give an ounce of laudanum and nitre in a pint of blood-warm water sweetened with molasses.

Shake up together in a quart bottle, hold up the cow's head, slip the neck of the bottle in the side of her mouth, between the grinders and front teeth, and let the liquid run down

her throat. If this does not relieve her, she will bloat slightly and appear uneasy. In three or four hours give one-half ounce more of laudanum and nitre; repeat this dose as often as she becomes uneasy, or in three or four hours. If this does not relieve the cow, increase the quantity until the medicine masters the disease.

One of my cows had milk-fever three years in succession. The ordinary dose did not relieve her. I gave two ounces of laudanum and two of nitre at one dose. It had the desired effect, and relieved her so that in a few hours she was on her feet eating hay.

I have never known a cow treated with physic to recover from milk-fever; with the above treatment, I have never lost a cow.

## Feeding Skim-Milk to Beef Calves

The Nebraska Experiment Station has been conducting some experiments to show the profit of raising beef calves on separator milk as compared with that derived from allowing them to suck their dams.

To start this experiment, western grade Hereford and Shorthorn cows were selected, the aim being to secure individuals uniform in respect to date of calving, type, and milking tendency.

The cows were divided into two lots, Lot I. being taken from their calves, while Lot II. were allowed to run with them.

The animals in both lots were weighed once a week, and all rations carefully measured and recorded.

The calves fed by hand made good gains during the first five months, but not equal to the lot running with the cows.

When the two lots were put on feed after the test, there was not much difference in the condition or form, but the sucking calves were smoother and better fleshed.

After weaning, the hand-fed calves had the advantage, being accustomed to rations of dry forage and grain. At the end of the year there was practically no difference either in appearance or weight between the two lots.

To find the difference in the cost of raising the two lots all food was charged to both cows and calves at market price.

In this test it was found that a skim-milk calf could be raised to six months old at a cost of about nine dollars for all food consumed.

Labor was not taken into consideration owing to the great difficulty in finding a fair basis.

The cows used in the experiment were more inclined toward beef than milk production, but still they averaged 3,992 pounds of milk and 158 pounds of butter fat during the milking period. This amount of butter fat would make 184 pounds of butter, which would be the amount charged to each sucking calf.

As to the quality of the two lots, at the age of fourteen months it was quite impossible to detect any difference between the sucking and skim-milk calves.

Husband: "I wonder what we shall wear in heaven."

Wife: "Well, if you get there, John, I imagine most of us will wear surprised looks."

## Wool Sheep Vs. Mutton Sheep

In a recent issue of Wool Markets and Sheep, appears an interesting article on this subject. The total value of the sheep industry in the United States at the present time is \$107,697,530. The mutton producing sheep are those which are raised mostly in the States bordering on the Mississippi and extending east to the Atlantic, while the wool growing sheep consist of those animals running in large bands on the western ranges and the Merinos purebred and grade which are kept for their fleeces. In Canada no corresponding distinction is made, our farmers usually keep sheep for both mutton and wool-producing purposes, the majority, perhaps, for the latter chiefly.

Only a few years ago the vast majority of range sheep were estimated entirely on their wool-producing ability, and many maintain that this was the chief cause of the depression in the sheep industry of 1893, and that the many failures which resulted at that time were largely due to the fact that the breeders counted too much on the wool product and not enough on the carcasses. In Chicago and other large markets what are termed natives are the sheep which command the largest price. These sheep are those which have already been referred to as the mutton producers. Outside of those bred in the United States, many thousands are annually shipped in from Canada. These sheep are raised in very small flocks, as compared with our great western bands, and it is only in these small flocks where pasture is supplemented with soiling crops, such as rape, vetches, etc., or grain, that the best results can be obtained. These sheep, although essentially mutton producers and reckoned from a profitable standpoint in proportion to their ability to take on flesh, nevertheless shear a larger average clip than the sheep on the western ranges. On account of the very favorable conditions, however, that make these sheep profitable to the smaller farmer they are eliminated from the consideration of the ranchman who counts his sheep by the thousands and must depend almost exclusively, and with few exceptions, on pasture and hay to feed his flocks.

The sheep which command the second price on the market, and which supply a large proportion of our people with mutton, are the sheep bred on our ranges and sold to men who make a business of feeding them for our markets. These sheep generally bring to the ranchman a low price, and yet after they are fed they command the second price in our markets. The lowest priced sheep, generally speaking, which are sold for slaughtering, are those which are partially fattened under favorable conditions on the ranges and shipped direct to the markets. This class of stock, however, represent only a very small per cent. of the sheep which are killed for mutton.

Ranchmen are strongly urged, notwithstanding the fact that wool production has become more profitable in the United States, to keep the mutton-producing quality in mind, as it is likely to be more permanently profitable. In urging this upon the ranchmen the writer says:

"Do not understand for a moment that while increasing the size of the carcass you should lose sight of the wool clip. This is not in the least necessary. There is no evidence of a case

where the introduction of a proper kind of mutton sires has diminished the number of pounds of wool per head in the offspring on the range, and the proper kind of mutton sires brings us to a subject worthy of careful consideration. The first requisition in the choice of a sire is his power to produce stock which in addition to their wool will attain the greatest weight in the shortest time with the least expenditure. Special attention is here called to the word weight which is used advisedly in preference to the word size. It is to be regretted that many of our best breeders, and even some of our show men and judges, seem to look for what are commonly called the "big uns" rather than the broad, low, blocky, quick feeding sheep.

"This is a point I contended in the show ring for many years, and anyone who has ever fed a long-legged, big sheep, against a short-legged, broad, wide, thick-bodied one, will immediately see the profitable advantages in favor of the latter. Let me urge you in picking your sires to select those rams with short, thick necks, deep and wide in the chest, with ribs sprung out from the backbone at right angles, instead of slanting off like the shoulders of a race horse, wide in the hips and low in the twist and with their four legs stuck on the four corners of their body. Such rams are the most prepotent sires and have constitutions which can withstand any amount of hardship. The lambs from such sires will develop quickly and reach a profitable age much earlier than the vast majority of sheep at present on our western ranges."

## Does Not Endorse the Canadian Dressed Poultry Company

The following communication, received from the Department of Agriculture, Ottawa, has been sent us for publication:

"Professor James W. Robertson, Commissioner of Agriculture, says he is receiving letters from a good many farmers which say he endorses the Canadian Dressed Poultry Company, Limited, represented as about to be incorporated with a capital stock of four hundred and fifty thousand dollars.

"Professor Robertson has not in any way endorsed the Company, nor is he in any position to express an opinion concerning it. However, he has authorized the statement that, in his opinion, for the purposes mentioned in the prospectus of the Canadian Dressed Poultry Company, Limited, a company with a capital stock of four hundred and fifty thousand dollars is likely to be on too extensive and expensive a scale to carry on business economically in the interests of the producers of poultry in Canada. He does not recommend farmers to invest in the stock of the Company."

## STUDIES IN NATURE.

**This department, which should properly appear in the first issue of the month, we have been compelled to hold over till next issue. Some important matters will be dealt with and our readers should be on the look out for it.**

# The Farmer's Garden

## Its Cost and Importance on Every Farm

Every farm should have a garden. Not for the cash revenue to be derived from it, but for the quantity of good, wholesome vegetables and table utilities that may be derived from it. There is hardly one Canadian farmer in ten who gives any special attention to his garden. It is generally left till after seeding, and then the preparations in the way of a seed bed, etc., are so hurriedly performed that the soil is not in a fit condition to return a good crop. To have a good garden some little care must be given to it. If this is done no other portion of ground on the farm will give as much satisfaction to the farmer. In a bulletin lately issued by the Illinois Agricultural Experiment Station some valuable information is given, based upon work con-

number of plantings which it will be necessary to make in order to secure the desired succession. A combination of the two methods will usually be found the most satisfactory.

### LOCATION AND SOIL.

The garden should be located near the house so that it will not be necessary to walk half a mile to get a head of lettuce for breakfast, or a dozen roasting ears for dinner, or a few tomatoes for supper. To be at their best, most vegetables should be used very soon after they are gathered. The garden will be appreciated most if it is not far from the kitchen, not only because the vegetables may be used fresher, but also because the products of the

rowed and again planked. This treatment brought the soil into excellent condition for the reception of seeds, without the use of a single hand tool.

Beginning at the east side of the garden, rows three feet apart, running lengthwise of the area, were laid out by means of a sled marker drawn by hand. If a guide stake is placed at each end of the row to be laid out, and one in the middle, it is easy to mark the rows as straight as they could be made by the use of a line, and with much less trouble. Three rows were marked at a time, and the drills made by the runners were of just the right depth for the planting of radishes, beets, onions, and other small seeds. Where these small seeds were to be planted the rows were made only one and a half feet apart, by straddling the marks already made. For planting the asparagus roots and potatoes, furrows were opened with a one-horse plow, and for the peas, with the plow attachment on a wheel hoe.

So far as possible each vegetable not needing a full row (280 ft.) was given one-half, one third, or one-sixth of a row. Conspicuous stakes were set at the proper places on either side of the area so that any given row in the garden could be divided into halves, thirds, or sixths by simply sighting across the stakes.

### CULTIVATION.

As soon as the plants were up, so that the rows could be easily seen, cultivation was started. A one-horse cultivator with very narrow teeth was used, and was found to be just the tool for work among small plants, since it could be run very close to the row without destroying the plants by uprooting them or covering them with dirt. The soil was stirred with this tool as often as was necessary to keep the weeds in check and the top soil loose and open. Cultivation usually took place as soon as the soil was sufficiently dry after each heavy rain, and was continued throughout the season wherever the growth of the plants did not prevent it. Most of the vegetables in the garden were cultivated as many as six times.

Considerable hand hoeing was done between the narrow planted rows, and close about the plants in the case of cabbage, tomatoes, melons, etc. In fact, the whole garden was kept in a high state of cultivation regardless of the amount of time required, although the latter was carefully noted and charged against the garden.

Weeding was also necessary, as it is in every garden, to some extent at least. All the smaller growing plants, such as parsnips, beets, carrots, onions, etc., were weeded once, while yet quite small; and somewhat later they were thinned.



This photo was taken by The Galbraith Photo Co., Toronto.

Bike Wagon as exhibited at Toronto Horse Show. Fitted with  $1\frac{3}{4}$  inch Dunlop Detachable Pneumatic Tire. The exhibitor is Wm. Merry, Toronto.

ducted with an experimental garden last season from which we take the following:

In planning for a garden, one of the first things is to select and procure the seeds necessary for its planting. It is usually more satisfactory to select these from the catalogue of some reliable seedsman, and order by mail than to depend upon the stock usually carried in the country store. In the selection of varieties due consideration should be given to the matter of securing a succession of the same vegetable for a longer time than one planting of one variety will provide. The two methods of securing a succession in the case of vegetables having a short period of edibility are (1) planting varieties of different degrees of earliness, and (2) planting the same variety at different times. The greater the number of varieties planted, the greater will be the expense for seed. The fewer the number of varieties, the greater the

garden will enter more largely into the daily bill of fare, if they are within easy reach.

The soil for the garden should be rich, and in a high state of cultivation. The ground selected for the garden of the horticultural department was one-half acre of black prairie soil. This area was naturally a little low, but had been thoroughly tile-drained and plowed the preceding fall, and was therefore well suited to the growing of vegetables. In shape it was a long rectangle, being 280 feet long and 77 feet wide.

### PREPARATION OF THE SOIL FOR PLANTING.

Early in the spring twenty loads of partially rotted manure were applied to the half-acre, and on April 7th, when the soil had become just dry enough to crumble readily without sticking to the hand, the land was plowed, disced, and planked. April 9th, it was har-

## THE COST.

The total cost of the garden, including seeds, insecticides, and labor was \$32.06. In return for this expenditure the garden furnished a continuous supply of fresh vegetables throughout the growing season, with enough sweet corn for drying, tomatoes for canning, cucumbers, peppers, cabbage, string beans and green tomatoes for pickles, besides onions, beets, carrots, parsnips, salsify, winter radishes, cabbage and celery for winter use, and parsnips, salsify and horse-radish left in the garden for use in the spring. As already noted, these vegetables could not ordinarily have been bought at retail for less than \$83.84. This leaves a balance of \$51.78 in favor of the garden. What other half-acre on the farm would pay as well?

## SUMMARY.

1. The farmer should have a large garden located near the house and planted in long rows so that it can be cultivated with a horse.

2. A succession of the same vegetable may be secured by planting different varieties at the same time, or the same variety at different times.

3. After an early crop is harvested a later crop may be planted upon the same ground. The cultivation of the late crop will keep the ground free from weeds which might otherwise go to seed.

4. Cucumber beetles may be controlled by spraying with Bordeaux mixture, and cabbage worms by spraying with white hellebore.

5. The garden should furnish a full supply of vegetables for winter use as well as a continuous succession throughout the growing season.

## Canadian Horse Show.

(Continued from last issue.)

The exhibit of harness horses was good. There was no strikingly sensational animals out, but, on the other hand, the whole display was of marked merit, with few poor or indifferent. The general average was high. Mr. George H. Gooderham was the most successful gentleman exhibitor. He was first in both the light classes. For mare or gelding 14.1 and nor over 15.1, Always Ready, a very stylish brown gelding, was first, and with his mate, Just Ready, was first for a pair under 15.2, first for a pair shown to a Victoria, judged for horses and appointments, and were again first for harness tandems, the wheeler to have conformation, substance, quality and action, the leader to be a showy, well-bred, all-round actor, with good manners, the wheeler to be over fifteen hands. Again, in the four-in-hands, the same exhibitor won. Mr. Gooderham won first for his brown mare, almost dark enough to be a black, with white hind feet, in the class for singles under 15.3 shown to a gig-cart or phaeton. All these classes were well filled, and it was a great record to make. In the class under 15.1, Mr.

Crossley, Rosseau, Ont. was second with his Hackney mare, Rosseau Jewel, a brown roan, by Rosseau Performer (5391). In the class above this Doane Bros., Toronto, were second with Josephine, a light bay mare, with dark points, and this mare, with her mate, Napoleon, were second in harness tandems and first in a big class for pairs over 15.2. Charles Head, Guelph, was third with a nice, thick brown, a good stepper, not over 15.3. In the single class over this height Wm. F. M. Fraser, Toronto Junction, was first with a 16 hand black, a capital mover. J. Ross Robertson was second with Winnie Honor, and with her "Canadian" mate was third for a pair, and first for a pair, a brougham and appointments. P. Maher, Toronto, was third in the single class with Dude and second for a pair. Crow & Murray got second for a team not over 15.2, and in the same class Yeager & Curzon, of Simcoe, were third with a pair of brown geldings, and were third for four-in-hands, second going to Crow & Murray.

## SADDLE HORSES.

There were over ninety entries, and a great show of saddle horses. For combined saddle and harness horse there were twenty-nine entries, and a fine lot they were. First went to Geo. Pepper, Toronto, for Queen Bertha, a very flash grey mare, good enough to win the champion gold medal as best saddle horse in the show. Second went to St. Clair Balfour, Hamilton, for Blucher, and third to Yeager Curzon, for Trilby, a chestnut with blood like lines. In the class for saddle horse not over 15.2, L. Meredith, London, was first with a grey, rather a bad color but a well made one. H. N. Shaw, Toronto, had a very neat chestnut for second place, and Wm. Mann, Newmarket, a good brown for third. The class over 15.2 up to carrying 160 lbs. brought out a big field of twenty-eight entries. Watchman, a bay gelding with black legs and a little white on off hind foot, won first money for Yeager & Curzon. He is a fine type of a saddle horse, and is by Goldfoil. Second went to L. Meredith, London, for Falkirk, and third to Allan A. Case, Toronto, while Stewart, Craig & Galloway, of Guelph, had the yellow reserve ribbon. In the heavy class up to carrying 200 lbs., Queen Bertha won, and S. B. Fuller, Woodstock, second, and Mrs. W. Woodruff, St. Catharines, third. For lady's saddle horse not under 14.3 to be ridden by ladies, Allan A. Case was first, with a very neat brown, ridden by Miss Janes. Miss Clute, of Toronto, was second with the brown mare, Fancy, while Scout, a bay gelding of good form, owned by Hume Blake and shown by Mrs. Kerr, was third.

## HUNTERS AND JUMPERS.

Over one hundred entries for these classes—many of them winners at previous shows both in this country and in the United States. Heavy weight qualified hunters were a disap-

pointing class, and no first award was made. Lightweights were very good. Hume Blake was first with Patrol, a very stylish brown gelding. He also won the Toronto Hunt Plate and the Gold Medal as the best hunter in the show. For heavy weight green hunters there were 18 entries. A. Beck, London, was first and Geo. Pepper got the rest of the ribbons. In the light-weight, green hunters, Stewart Craig and Galloway, the new Guelph firm, were first with Plucky Lad, a brown gelding, showing good breeding. A. Beck, second, and George Pepper third with Lord Minto, who won lately in the light-weight hunting class in Boston, and was first here in the open class for jumping. He is by the thoroughbred horse, Edinburgh. Mr. Pepper was second with Pearl, and Wm. Buckle, Guelph, third with Sweetbriar. In the next class for best performance over six jumps, George Pepper got all the awards. First went to Pearl, who cleared seven feet in Chicago, and six-and-a-half last week in Boston. His third prize mare, Dolly, was only in training two weeks. In the Corinthian class, Geo. Beardmore, Toronto, was first with Cockatoo, and Mr. Pepper second and third. In the contest for the Toronto Hunt Plate, won by Hume Blake for second place, Dr. Andrew Smith's Primrose, and Allan A. Case's Cardinal, tied, and each got a blue ribbon.

## SPECIAL CLASSES.

Ponies were good. Lady Constance, a chestnut mare, was first for Misses G. and J. Gooderham, and her mate, Lady Isabella, second, for D. and H. Gooderham—this in the class not over 1.2.2. Over that height, R. Belth, Bowmanville, was first, and John Lennox, Toronto, second. Doane Bros. had the only livery horses shown, and turned out two good pairs. For delivery waggon horses, the Robert Simpson Co. were first with a beautiful grey mare, and the City Dairy Co. were second and third. For butcher's cart, J. W. Holman was first, Thomas Bertram second, and G. H. Moody third—all good delivery horses. Professional coachmen made a good turnout, and W. S. Douglas, coachman for W. D. Beardmore, won first, with F. Harland, coachman for Mrs. Woodruff, St. Catharines, second, and J. Morton, for Geo. Gooderham, third.

The last class on the list, that for four-year-old Canadian-bred gelding or mare, suitable for riding or cavalry purposes, prize given by His Excellency Lord Minto, was awarded a fine bay gelding owned by L. Meredith, London, got by Ranleigh. Second went to Robert Porteous, Simcoe, for Scottie, by Goldfoil, a fine chestnut. A round dozen, all very good animals, were out for this prize.

"Pa, what is a political croaker?" "Well, he's a man who believes the country will go to the dogs if he doesn't soon get into a good fat office."—*Detroit Free Press.*

# The Sugar Beet World

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

EDITED BY JAMES FOWLER.

## ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

President, John Parry, Dunnville; First Vice-President, J. M. Shuttleworth, Brantford; Second Vice-President, B. B. Freeman, Warton; Third Vice-President, T. A. Smith, Chatham; Fourth Vice-President, W. S. Caron, Aylmer; Secretary-Treasurer, D. H. Price, Aylmer; Solicitor, N. B. Gass, Toronto.

### EXECUTIVE COMMITTEE.

E. R. Blow, Whitby; Charles Kelly, Uxbridge; S. A. Perry, Warton; T. Elliott, Brantford; Ald. Farnell, London; Hugh Blain, Toronto; T. A. G. Gordon, Aylmer; F. G. Ramsay, Dunnville; D. A. Jones, Beeton; J. H. Glover, Aylmer; John A. Auld, M.P.P., Amherstburg; Charles Cain, Newmarket; J. R. McCallum, Welland; B. W. Stewart, Mount Forest; George E. Bristol, Hamilton; Howard Annis, Whitby.



## Sugar Beetlets.

The people of the United States consume about 2,000,000 tons of sugar every year.

Of course in order to make the raising of sugar beets profitable there must be factories within easy reach of the producer.

The raising of sugar beets, and the manufacture of sugar therefrom, is a new industry in this country. The people of Germany and France have been engaged in it for many years, and it promises rich returns for the farmers in many sections of Canada.

California has a number of factories, one of which is the largest in the world, costing \$2,750,000, and having the capacity for working up each season the beet product of 30,000 acres of land. Every day it runs it is capable of turning 3,000 tons of beets into 400 tons of sugar.

The demand for sugar is permanent and constantly increasing in every country. People eat more sugar as they advance in progress, enlightenment and civilization. Sugar was once considered a luxury; it is now regarded as one of the necessities of life.

Beet sugar is in no sense different from cane sugar; it is exactly the same in appearance, in elements and in taste, the composition of both being carbon, hydrogen and oxygen. The highest grade of refined granulated sugar can be produced from sugar beets direct, ready to barrel and ship, in twelve hours after the process begins at the factory.

Ten sugar beet factories have been built in Michigan within the last two and a half years; three of them at Bay City paid out, in 1900, to farmers within a radius of twenty five miles of the city more than \$400,000 for beets. It was more than these same farmers had realized for any one crop in a good

many years; it made them flush with money.

The cultivation of sugar beets takes very little if any fertilizing matter from the soil, and leaves the ground in fair condition for the growing of other crops. There is little or no waste in a crop of beets; the leaves and crowns, which are cut off, and the pulp from the factory can be utilized as feed for stock. The manufacture of beets into sugar requires an abundance of pure limestone for clarifying purposes, pure water, cheap coal and plenty of beets.

An acre of suitable land, well cultivated in sugar beets, will produce from ten to twenty tons, worth from \$4 to \$5 per ton, according to the richness of the beets in saccharine matter. The crop requires great care and labor and some expense. The ground must be plowed deeply, the soil well pulverized and put in good condition, the seed carefully sown in drills, the plants thinned and kept free from weeds, and well cultivated until the leaves shade the ground. All this means labor, skill and expense. The thinning and weeding is perhaps the most tedious job of all, coming as it does in the busy season, but this part of the labor can be done by boys and cheap labor.

## Big Beet Sugar Concern.

Negotiations have been completed in Chicago for the formation of the largest beet sugar concern in the world. A company has been organized with a capital stock of \$6,000,000, to be known as the Arkansas Valley Sugar Beet and Irrigation Land Company. The plant of the new company is to be located in Prowers County, Colorado, in the famous Rocky Ford fruit district. A number of New York capitalists, including the Oxwards, the Cuttings, the Hamiltons, the Lawsons, and Guy Richards, of the Mercantile Trust Company, are interested.

## The Wallaceburg Company.

The Wallaceburg Beet Sugar Co. has been incorporated, with capital stock of \$300,000, and Alex. Forbes, Port Huron, Mich.; Benj. Boutelle, G. W. McCormack and H. M. Gillett, Bay City, Mich.; J. W. Steinoff, H. A. Stonehouse, D. A. Gordon and Miles McCarron, of Wallaceburg, as directors.

## Beet Sugar in Canada.

A Review of the Industry in Quebec.

(Continued from last issue.)

Another thing which we must not forget is the considerable amount of capital required for building a factory, varying from \$400,000 to \$500,000 at least. No capitalist would be anxious to embark in such a business, and sink half a million dollars in an enterprise of that kind, with the prospect of considerable deficits looming up before him for many years to come.

It is all very well to say that capitalists are quite able to take care of themselves, and that, in consideration of the large profits they will be able to realize, it is no business of the Government to come to their assistance. Those who embark in that business have to make heavy outlays at the outset. It is necessary to send experts among the farmers, during the summer season, to watch the growth of the beet, and to teach the agriculturists the best methods adopted in European countries for producing the largest yield of beets with the greatest percentage of sugar obtainable, so that the crop may yield a profitable return both to the manufacturer and the farmer. But, as I said, if we expect capitalists to make all these outlays without assisting them in some way, we cannot expect to see this industry introduced into this country.

But there is no reason for feeling alarmed or surprised at the difficulties met with here, and which are the main cause of the failures mentioned. History once more repeats itself in our case, as the rise of this industry in Europe was attended with similar experiences and drawbacks. It was introduced in Europe in 1806 with enormous bounties from the various Governments. Up to 1820 it was a bounty fed industry, enjoying enormous protection, and then only it was that it began to show some practical results. It enjoyed those enormous bounties down to the year 1840. But since 1850 it has yielded considerable revenue to the various States where it is prosecuted. In France to-day there are 360 sugar factories and over 400 in Germany.

In the United States the rise of the beet-root sugar industry was attended with the same difficulties as those just referred to. From Bulletin No. 52, published by the Department of Agriculture in Washington, in 1897, I gather that the first attempt to introduce this industry was made in 1830, when the yield was but a few hundred pounds of sugar. From 1831 to 1837 the output was nil.

From 1838 to 1839, 1,300 pounds.  
From 1839 to 1862, nil.  
From 1863 to 1871, 300 to 500 tons per year.

In 1872, 500 tons.  
In 1873, 700 tons.  
From 1874 to 1877, less than 100 tons per year.

In 1878, 200 tons.  
In 1879, 1,200 tons.  
In 1880, 500 tons.  
From 1881 to 1882, less than 500 tons.

In 1883, 534 tons.  
In 1884, 953 "  
In 1885, 600 "  
In 1886, 800 "  
In 1887, 255 "  
In 1888, 1,010 tons.  
In 1889, 2,600 "  
In 1890, 2,800 "  
In 1891, 5,359 "  
In 1892, 12,091 tons.  
In 1893, 20,453 "  
In 1894, 20,443 "  
In 1895, 30,000 "  
In 1896, 40,000 "

Within the last few years the yearly output has reached over one hundred thousand tons.

As will be seen, it was as late as 1830 that this industry was started in the United States, and, just as in the case of our own country, it took several years before it yielded any results. It was even on the eve of being altogether abandoned, so unsatisfactory were the results obtained from the first experiments. Therefore we need not wonder if the introduction of the same industry into our country has resulted in so many failures.

That the problem of the manufacture of beet-root sugar is now satisfactorily solved is beyond question, from the manufacturer's standpoint. As to whether sugar beets can be successfully grown with a sufficiently high percentage of first-class sugar to permit of their being manufactured with profit is now an indisputable fact. The great trouble with us here is the one I have just referred to, namely, the difficulty of inducing farmers to grow a beet which may prove acceptable as well as profitable to the manufacturer. The roots must also be raised in sufficient quantities to supply the factory for a reasonable period of time.

Now, this educational work is a question of time requiring a practice of several years. Nor can that education be brought up to the right standard, unless factories be started which will induce the farmers to grow the beet and will be willing to buy it from them at paying prices.

I shall not follow the hon. gentle-

man (Mr. Sproule) in his review of all the advantages which would accrue to a particular locality from the establishment of a beet-sugar factory. All I need add is this: that the Government should not view with indifference the unquestionable benefits which would result from the introduction of this industry into the country. If we consider the cost of building a factory, which is estimated at from \$400,000 to \$500,000 at least; if we consider that the introduction of this industry and the raising of the beets means the cultivation of several thousand acres of land, divided among 700 or 1,000 families; if we bear in mind that it means the employment of several hundred agricultural laborers, in addition to the many employees the sugar factory itself would require, it is easily seen how beneficial this industry would prove to the country.

But I have not yet pointed out all the advantages that would accrue to Canada from the establishment of the beet-sugar industry. For instance, a considerable quantity of pulp would be produced by the factory, and this by-product is known to be a very useful and desirable feed for animals, and it would thus stimulate dairying. It must be borne in mind that the manufacture of beet-root sugar also means the employment of a large amount of labor in the winter season, as well as in the summer season. There is no doubt that this industry would assist our farmers in fattening their stock and improving their farms and bringing them up to a higher state of cultivation, and so it would develop the wealth of the farming community. What happened elsewhere would also happen here. That such were the results obtained in Europe is beyond dispute.

In a special report published by the Department of Agriculture, in Washington, in connection with the beet-sugar industry, the writer points out the improvement of lands as one of the advantages accruing therefrom:

"The writer observed during his inspection of sugar-beet farms this summer that the owners of the land received in many instances as high as \$5, in some cases \$6, and in a few cases \$7 per acre cash rent for land devoted to the raising of sugar beets, and this in localities where \$3 per acre would have been the highest possible amount which could have been obtained as rent for similar land used for other farming purposes. Inquiry was particularly made into the value of land on which sugar beets were being raised around Watsonville and Alvarado, Col., and it was rarely placed lower than \$200 per acre. Rents were rated at from \$10 to \$15 per acre, yet those farmers claimed to be making a good profit raising beets. The sugar-beet lands of Utah were very much enhanced in value, so that the experience of this country up to the present time seems to be that the location of a beet-sugar factory in a district causes a healthy rise in rents and values of land."

I fail to see why the same cause should not produce the same effect

here as in the United States. It is a matter of experience—and I have never entertained any doubt on this point—that a considerable increase in value of lands has always resulted from the location of a beet-sugar factory in any district.

Now, if such are the advantages resulting to any particular locality from the establishment of a beet-sugar factory, it is easily understood how beneficial would prove to the country the establishment of from thirty to forty sugar factories, which will be required for manufacturing sugar in quantities sufficient to supply the home market.

Now, in order to reach that end, what means are we to adopt? It is an uncontroverted fact that the sugar-beet can be successfully grown in this country; still, there is nothing yet in sight.

(To be continued)

### The Proper Soil.

An agricultural bulletin, recently issued by a professor at the Michigan Agricultural College, on soils is very practical. The following is a synopsis: "Clay-loam soils give the highest tonnage beets, with the maximum per cent. of sugar. Proper proportions of both clay and loam give the best results. Where clay is in excess there is always a hard sub-soil which must be deeply plowed and mellowed before sugar beets can be grown. Even with the best preparation such a soil is liable to bake in summer, resulting in ill shaped roots, with a lower per cent. of sugar. Such soil must be provided with a liberal amount of humus, or organic matter, before beet seeds are planted, and liberal cultivation and moisture is also required. Too great a portion of sand has the disadvantage of not holding capillary moisture, the absence of which arrests growth and causes a meagre crop. A large crop taxes the capacity of a soil, and the lighter sandy soils lack the fertility to produce a maximum growth. Their advantage lies in the fact that they can be more easily worked, and that all operations connected with the preparation of the crop are more easily accomplished. In over forty experiments and classifications by farmers, muck soil ranks next to clay loams for growing the beets. But muck soils are so variable that it is unsafe to plant them until experiment has proven that they will yield a crop containing a paying percentage of sugar. In three years' experiments on the college farm, with over 100 tests, we have yet to obtain, from muck land, a sample beet yielding 12 per cent. of sugar. From thirty samples of Kalamazoo, Mich., celery muck, the highest percentage of sugar was 10.95, the average 9.04. Twenty samples from a large muck farm in Lapeer county gave an average of 8.64 per cent. of sugar. In contrast to these low figures may be placed twenty samples from a deep muck soil, which had grown good crops of oats, barley and corn. These showed an average sugar per cent. of 12.76, and six of the samples yielded over 14 per cent."

**Communication.**

Editor SUGAR BEET WORLD:

SIR,—If ever the agricultural interests of this country got "turned down" hard, it is by the present Dominion Government on the beet sugar question. It was thought by those interested in the development of the industry in Ontario, when the budget was brought down, that the farmers were badly used, and it is only as the session proceeds, and they see what is being done for others, that they realize just how badly they have been treated. It appears there are millions of dollars for the iron and steel industry, millions for Montreal elevator, millions for railway promoters, for dredging small streams and canals that are of no value to the general public, millions to develop the steel rail business, ship subsidies, and for everything under the sun but the farming industry. The farmer must help to pay for all these things and gets nothing in return. You are told on the stump about election time how much is being done for the farmer; you are put off with some little promise to develop the foreign market for butter, cheese and live stock, but it is all a hollow sham. What is being done to develop the home market? There is a market in Canada for \$8,000,000 of sugar, purely an agricultural industry, and what is done when the Government are asked to encourage that industry? You are told that "We are not yet satisfied that we would be justified in granting bounties to revive that industry," but the Minister of Agriculture will send you a few circulars or some literature upon a subject that they do not believe in, or are not "yet satisfied" about."

But what steps are they taking to satisfy themselves one way or the other? Have they appointed a committee to investigate the subject or look into the development of the industry the past few years? No; the the Minister of Agriculture had some experience or knowledge of the industry in Farnham, Quebec, twenty years ago, and he says: "Do not put your money into this business, or you will lose it; take my advice." But he is willing to send you some circulars of an industry he does not believe in. Remember that; it is a great point. Foreign capitalists believe in the industry, and are willing to put their money into it, providing they are placed upon the same basis as in the United States. But the Government are not "yet satisfied" that it is a good thing. Ye gods! But the farmer deserves no better treatment if he does not look after his own interests. You ask for bread, and you get "circulars," and are expected to be satisfied.

SUGARITE.

Commenting on the above, we are not quite satisfied that such communications in any way advance the interests of the industry, and only give it space in order that the matter may be discussed in our columns, and the views of farmers aired on the subject. We are firm believers in the possibili-

ties of the industry, and that it will be, if thoroughly established, a great boon to the agriculturist. The advocates of the industry have strong grounds to feel dissatisfied with the action of the Dominion Government, but we are of the opinion that eventually further action will be taken by them to encourage the establishment of the industry, not only in Ontario, but in the other provinces as well; and, if the farmers and the Ontario Beet Sugar Association would take the matter up again, that the Government would see their way clear to appoint a commission to investigate the whole matter thoroughly, and that a definite understanding could be arrived at with the Minister of Agriculture in regard to assisting the farmer.

**Questions and Answers.**

Editor SUGAR BEET WORLD:

I see by the columns of your valuable paper that a company is being formed to build a sugar factory at Wallaceburg. Could sugar beets be profitably grown and shipped from, say Stratford or St. Paul's Station, to Wallaceburg? If so, would like to know the best kind of seed to sow. We have choice land for growing carrots or mangolds, but have had no experience with sugar beets.

OLD SUBSCRIBER.

Avon Bank, Ont.

There will be no factory built in Canada in time for this year's crop, nor would it be very profitable to ship that distance next year, as the beets would only net you about \$3 per ton after paying the freight. It is very likely you will have a nearer market, and I would advise you to try one-quarter acre as an experiment. Cultivate them very carefully, and you will be able to judge how many acres you wish to contract for when the time comes. Use Vilmor or Klein-Kauzels-been seed.

Editor SUGAR BEET WORLD:

We grow beets here for feeding cows and pigs, and I have often thought there was no better place than Trenton for a factory. I have been watching to see what was being done. Is there to be a factory in Ontario this year? If so, where? Could beets, if grown here, be shipped to that factory? If a meeting was held, would the Government send a man to advise us what to do?

Frankford.

FARMER.

From experiments made in your district some years ago, it is certain you can grow the proper quality of beets if you give them the proper attention. There would be no opportunity for you to sell your crop this year.

The farmers in your district are to make extensive experiments this year, under the supervision of the Government. Keep fully posted by reading the SUGAR BEET WORLD every week.

Editor SUGAR BEET WORLD:

Will you please tell us how sugar beets are pulled. The farmers in this section tried a kind called sugar beet last year, and found it almost impossible to pull them. Are the real sugar beets of a different nature?

Springbank, Ont.

S.G.H.

The beets you raised were not the real sugar beets, but a larger beet, more of the mangel type. The real sugar beet is more of the carrot or parsnip type, and grows 12 to 14 inches long and entirely under ground. From the very nature of them they are hard to pull by hand, but by using an implement like a subsoil plow they are easily raised. Wherever a factory is erected, these implements will be furnished by them.

**Sugar Beets for Michigan.**

Negotiations are on for the sale of 20,000 tons of sugar beets, grown at the Wallaceburg, Aylmer, and Welland district, to be shipped to Michigan, with a view to keeping the farmers in touch with the importance of beet culture. The Michigan manufacturers evidently recognize the superior quality of the beets grown here last year, and therefore consider it to their advantage to obtain them, pending the erection of factories in this district. If the negotiations are completed, Wallaceburg will contribute 10,000 tons, Aylmer 5,000, and Welland 5,000—the same to be paid f.o.b. at a convenient station, in case the farmers will agree to plant the required number of acres. The committee here have the matter in hand, with the view of obtaining the best offer, when a meeting will be held for the purpose of obtaining the necessary acreage.—  
*Welland Tribune*

Beets require rich soil for a heavy crop, but they take but a very small amount of fertility from the ground, and actual results of experiments the past season completely explode the notion that land planted to beets one season is unfit for corn the next.

Beet-raising increases the earning capacity of the soil, and land that formerly commanded but \$20 will, through this new product, bring \$200.

**OXNARD  
CONSTRUCTION CO.**NASSAU STREET,  
NEW YORK CITY.**Build and Remodel Beet and Cane  
Sugar Factories.****Adaptability of Location Investi-  
gated,****Furnish Agricultural and Techni-  
cal Advice.****Beet Seeds and all Necessary Sup-  
plies.**

# The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, 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 2,000 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 resident 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, Secretary.  
Parliament Buildings, Toronto, Ont.

## FARMERS' INSTITUTES.

|                            |    |
|----------------------------|----|
| Bruce, C. . . . .          | 1  |
| Bruce, S. . . . .          | 3  |
| Brant, N. . . . .          | 47 |
| Dufferin . . . . .         | 12 |
| Durham, E. . . . .         | 3  |
| Essex, S. . . . .          | 4  |
| Elgin, E. . . . .          | 3  |
| Frontenac. . . . .         | 2  |
| Grey, C. . . . .           | 3  |
| Grey, N. . . . .           | 7  |
| Grey, S. . . . .           | 6  |
| Haldimand . . . . .        | 41 |
| Huron, E. . . . .          | 36 |
| Hastings, N. . . . .       | 20 |
| Kent, W. . . . .           | 3  |
| Leeds . . . . .            | 1  |
| Lincoln . . . . .          | 4  |
| Lanark, N. . . . .         | 31 |
| Lanark, S. . . . .         | 27 |
| Lambton, W. . . . .        | 37 |
| Lambton, E. . . . .        | 6  |
| Monck. . . . .             | 2  |
| Muskoka, C. . . . .        | 9  |
| Manitoulin, E. . . . .     | 31 |
| Middlesex, N. . . . .      | 3  |
| Northumberland, W. . . . . | 3  |
| Northumberland, E. . . . . | 1  |
| Ontario, S. . . . .        | 8  |
| Oxford, S. . . . .         | 45 |
| Oxford, N. . . . .         | 42 |
| Perth, N. . . . .          | 5  |
| Peel. . . . .              | 31 |
| Parry Sound, W. . . . .    | 5  |
| Parry Sound, E. . . . .    | 4  |
| Peterboro, W. . . . .      | 3  |
| Peterboro, E. . . . .      | 1  |
| Prince Edward. . . . .     | 2  |
| Stormont. . . . .          | 8  |
| Simcoe, S. . . . .         | 6  |
| Union . . . . .            | 1  |
| Victoria, E. . . . .       | 1  |
| Wentworth, N. . . . .      | 10 |
| Wellington, E. . . . .     | 3  |
| Waterloo, N. . . . .       | 25 |
| Welland. . . . .           | 11 |
| York, W. . . . .           | 4  |
| York, E. . . . .           | 5  |

## WOMEN'S INSTITUTES.

|                            |    |
|----------------------------|----|
| Bruce, W. . . . .          | 9  |
| Durham, E. . . . .         | 19 |
| Halton . . . . .           | 13 |
| Huron, W. . . . .          | 4  |
| Ontario, S. . . . .        | 3  |
| Northumberland, W. . . . . | 5  |
| Peel. . . . .              | 2  |
| Wentworth, S. . . . .      | 15 |
| Welland. . . . .           | 8  |

## 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 department 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.

Good, steady, industrious farm hand, single man, about 30 years of age, wanted on a farm for 6 months or longer. Farm is near Howick, Que. Wages, \$12 a month, or more according to capabilities of man. No. 806. a

Wanted, at once, a good steady single man on a large farm where all kinds of good stock are kept. Must be a fair plowman, and understand the care of horses. Three or four men kept. Would hire for 6 months, or by the year. Wages, \$100 for 6 months, or \$160 by the year, with board and lodging. Address, H. G. Arnald, Kenilworth Farm, Maidstone, Ont.

Man of good habits can have a good place on a farm near Toronto, close to the Yonge street electric cars. Wages, \$16 to \$18 a month for 6 or 8 months. No. 807. a

Wanted a first class experienced cattle feeder (for a large Shorthorn herd) one that has had experience with young stock. Good wages and steady employment to good man. No. 808. a

## Situations Wanted.

Situation in a cheese factory wanted by a young man with eight months' experience. For particulars apply to C. Turnbull Scott, Lakelet, Ont.

Man, 27 years old, in good health, temperate, and with a good business education and able to do all kinds of farm work, wants a place in British Columbia or Edmonton District. Has been working manager of a farm for three years. No. 930. b

Young man, aged 19, with good references, who has had experience in all kinds of farm work, is open to hire for any length of time. Wages, \$15 a month. Address, Robert B. Demorest, Box 147, Frankford, Ont. 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.

## List of Institute Members Received Since April 10.

The following additional membership lists have been received since April 10, thus raising the total membership of Farmers' Institutes to 19,258:

## Draught Horse Breeding.

By James Mitchell, Goderich.

Notwithstanding the advent and increasing use of electricity as a motive-power, there is, and will be for many years to come, a place for the horse which no mere machine can fill. Especially is this true of the draught

or heavy horse, and, therefore, any effort or information that will help in the production of the best class of draught horses is in the interest of the farmers and breeders, who constitute more than three-fourths of the people of Canada.

For years Canada had won a name on this continent for its draught horses, and thousands were annually shipped at good prices to the American cities for heavy draught purposes, and to those markets created by the development of the Western States for breeding purposes. This continued up to a few years ago, when there seemed to be a superabundance of horses, and prices dropped to a very low figure, as a consequence of which many farmers went out of horse breeding. In recent years, however, prices have gone up, and farmers are beginning to breed again. The question is, what class of horses are the most profitable for the farmer to breed, and most worthy of encouragement for their usefulness and good qualities? In our opinion, the heavy draught is the best horse the farmer can breed, and the most profitable, everything taken into consideration. The Clyde and Shire have proved the best class of draught horses, and command the best prices. There has been some difference of opinion as to whether the Clyde horses of Scotland and the Shire horses of England are distinct breeds, or two families of the same breed, and a few words as to their origin may not be out of place here.

#### ORIGIN OF CLYDESDALES.

Over one hundred and fifty years ago, one of the Dukes of Hamilton purchased and imported into Lanarkshire, in Scotland, six stallions from Flanders. Between 1715 and 1720 John Paterson, a farmer of Lochlyock, in the parish of Carmichael, Scotland, brought from England a Flemish stallion, which so greatly improved the breed of horses in the Upper Ward of Lanarkshire as to have made them noted all over Scotland. The Lochlyock mares were famous during the latter half of the eighteenth and the first two decades of the last century.

It is nearly fifty years since Lawrence Drew purchased three geldings in England of a type which he considered bore all the points of a good draught horse, as exhibited in the very best Clydesdales. Wherever these horses were shown at the great agricultural fairs in Scotland they were never beaten. Then he bought the celebrated stallion Prince of Wales, whose grand-dams on both sides were English mares, and afterwards Darnley, another noted Clydesdale, with at least one-fourth of his blood English. After securing Prince of Wales as his stud horse, Mr. Drew purchased a large number of mares and fillies, principally from the Midland Counties of England, for breeding purposes; and it is an established fact that up to 1875 there was a continuous and extensive interchange of breeding ani-

mals between England and Scotland. After Mr. Drew's death a sale of his stock was held, and some of his colts are said to have realized one thousand guineas, while one of his fillies purchased by Sir William Stirling Maxwell brought five hundred and ninety-five guineas, a price which no agricultural horse ever realized before. These prices demonstrate Mr. Drew's success as a breeder along these lines.

Other facts and opinions might be quoted to show that the crossing or blending of these two types of draught horses has many warm advocates, and produces worthy animals which meet all requirements for draught purposes. A writer in one of the numbers of the *Canadian Live Stock Journal*, discussing this a few years ago, quoted the remarks of the eminent veterinarian and Clydesdale breeder of Scotland, Prof. McCall, who at a meeting held in Blairhummock, attended by many prominent breeders, agreed with the general opinion expressed in favor of this breeding. Prof. McCall said it was a well-known fact that the most successful sires ever used by Clydesdale breeders had a considerable dash of Shire blood in them. He thought if they could but breed their Clydes with stronger backs and better ribs, the Clyde could hold its own with the Shire any day.

Holding this opinion, and desiring to assist and encourage those Canadian breeders who saw an advantage in the Clyde and Shire crosses, the Dominion Draught Horse Breeders' Society was formed and incorporated in 1886, and since that time it has registered nearly 1,300 stallions and about the same number of mares, many of which have gone to the United States and there assisted in maintaining the high honors and good opinions our Canadian draught horses have won. The stock registered on our books is carried on the railways at the usual reduced transportation rates.

What we advocate and encourage—and this view is endorsed by many leading breeders to-day in Canada and elsewhere—is that farmers should breed their best draught mares to the best Clyde or Shire stallions they can secure, of good size and as much quality as possible. They are within the reach of the average farmer to breed successfully. They will earn their living from the age of two and a half years till they are old enough to bring the full market price, and they can be sold at a handsome profit.

#### Corn Growing.

By T. H. Mason, Straffordville.

A celebrated American statesman has said that the growing of corn is a matter of longitude rather than altitude. This fact, for it is a fact—is beginning to be understood in the Province of Ontario.

CORN AS A NORTHERN CROP.

Our American neighbors have been growing corn away to the north of a

large portion of Ontario for many years, in Michigan, Wisconsin, Minnesota, and Dakota.

The failure of the pea crop and the great expansion of the dairy industry have of late years directed the attention of farmers to the possibilities of the corn crop, and to-day we find corn successfully grown and matured 100 miles north of Ottawa, and in the Parry Sound district. I think it is safe to say that the product of the corn crop exceeds in value per acre that of any other farm crop in Ontario.

#### SELECT SUITABLE VARIETIES.

One of the most important points in corn growing is the selection of a variety suitable to the location, and that will mature in that particular locality. A good variety is the one that will give the largest total yield of stalk and grain per acre, and that will mature safely in any average year. We would put special emphasis on the yield of grain, for we must remember that the nutritive value of a lot of grain is many times that of a pound of stalks.

Some of the best varieties for Southern Ontario are: Mastodon, Dent, Improved Leaming, Cloud's Early, and Wisconsin White Dent. For Central Ontario, Wisconsin White Dent, White Cap, Yellow Dent, and Salzer's North Dakota. For Northern Ontario, Blue Blade, White Flint, and King Phillip.

#### SELECT YOUR OWN SEED.

Having finally decided on the variety, after the first year select your own seed. Go through the field when the corn is ripening, and select the earliest ripening ears, then braid up and dry thoroughly before severe weather. You then get seed that is absolutely certain to grow, and if you repeat the custom you will secure a strain that will in a few years be several days earlier than the original seed you started with.

#### ANY SOIL BUT HARD CLAY.

Any of our ordinary soils, except very hard clays that are deficient in humus, will grow corn successfully. Moreover, it is a gross feeder, and will make use of a liberal quantity of manure.

Corn should be the clearing crop of the rotation, but, as it is very often handled, it is the dirtiest crop. If the land is full of weed seeds, liberally manured, and then cultivation stopped when the corn is a couple of feet high, we get a great quantity of weeds and a small crop of corn.

#### CULTIVATION.

Two systems of cultivation are commonly practiced in the corn belt; one is to plow very late in the fall, manure in the winter and spring, then gang plow or disc in May, making a shallow seed bed. There are two advantages gained by following this plan: (1) By late plowing the cut worms are killed, which during some years are very destructive, especially on sod; (2) the moisture accumulated by the winter

snow and rain is conserved and held for the growth of the crop during the summer—a very important matter these dry seasons.

The other system practised is to avoid plowing in the fall; let the grass and clover get a good start, and leave the plowing as late as possible, say after the middle of May. Then put on a full force and plow as quickly as possible about  $4\frac{1}{2}$  inches deep, and roll down. Then thoroughly work so as to get a good seed bed, and plant as soon as possible. This system is very often followed on very heavy soils, and the advantages claimed are that the soil is rendered more pliable and mellow by the fermentation of the green stuff and roots turned under, and that it does not become heavy and sodden, as it sometimes does when plowed in the fall.

#### HILLS VS. DRILLS.

Planting in hills has several important advantages over the drills: (1) The crop of grain is a little larger. (2) There is better exposure to the sun, and a freer circulation of air, thus hastening maturity and giving better quality. (3) There is a decided advantage in cutting where the corn-binder is not used. (4) Last and greatest, a much more thorough cultivation can be given, cleaning the land with the least expense, and doing away almost entirely with hand cultivation.

Plant at from 3 feet 6 inches to 4 feet each way, according to variety. As soon as planted, if land is in suitable condition, harrow thoroughly, and give a stroke of the harrow every two or three days until corn is up, then start the weeder, and do not be horrified if it does cover up some corn and tear out a few plants. You will never miss them at harvest time. Keep the weeder going until the corn is  $1\frac{1}{2}$  feet high, then cultivate deeply at first, but very shallow later, as long as you can possibly get through without too much damage. Do not cultivate more than two inches deep after the corn is 3 feet high, or you will destroy the shallow feeding roots and injure the crop. When you have nothing else to do cultivate corn. One of our oldest and most successful corn growers told me that he counted a boy and horse worth at least \$2 per day in the corn field.

#### THE SILO THE BEST.

After the crop is grown, then the question of preservation comes up. There is not the slightest doubt now that the silo is the best place to put it. Ensilage is no longer an experiment. Where silos are once introduced they gain ground annually, and the man who is opposed to ensilage is invariably the man who never used it, and therefore knows all about it.

In the year 1840, the total sugar crop of the world was 1,150,000 tons, in 1900 it was 8,800,000 tons, of this latter amount it is estimated that 5,950,000 tons was beet sugar, and 2,850,000 tons cane sugar, showing that over two-thirds of the entire consumption of the world is beet sugar.

### Treatment for Smuts.

Recommended by W. Lochhead, Professor of Biology, Ontario Agricultural College.

There are two common kinds of wheat smuts:—Stinking Smut, and Loose Smut. The former has a fetid smell which is very penetrating, and attacks only the kernel of the head, the chaff remaining free. Loose Smut, on the other hand, has no fetid smell, but attacks both the kernel and the chaff. As the bluestone and the ordinary hot-water treatments are not effective against Loose Smut, it is very important that the farmers early learn to distinguish the two kinds of wheat smut.

Another smut of great importance is the Loose Smut of Oats. This form can be treated by either the hot-water or the Formalin methods as outlined below.

1. Hot water treatment for the Stinking Smut of Wheat and the Loose Smut of Oats.

Things needed:—Two large kettles or barrels, a large coarse sack, 2 pails, a thermometer, and supplies of hot and cold water.

The seed to be treated is put into the coarse sack—half a bushel or more at a time—and for one minute dipped several times into the barrel which contains warm water at about  $115^{\circ}$  F.; then the sack is lifted out and plunged into the other barrel containing hot water at  $132^{\circ}$  to  $135^{\circ}$  F. The sack should be plunged and lifted in this scalding water so as to stir the seed, and allow the water to come in contact with every grain. This operation must last for ten or fifteen minutes. It is very essential that the temperature of the water should not fall below  $130^{\circ}$  nor get higher than  $135^{\circ}$ . If the temperature is too low, add some boiling water; if too high, add cold water. Great care must be taken to stir the water and to keep it at the proper temperature.

After treatment the grain should at once be spread out in a thin layer on a clean floor to dry quickly. Shovelling the grain over three or four times will hasten the cooling and drying.

2. Bluestone treatment for the Stinking Smut of Wheat.

Things needed:—Bluestone, water, lime, two barrels, and a coarse sack.

The seed is put into the coarse sack and immersed for 12 hours in the bluestone solution, which is made by dissolving 1 lb. of bluestone in 24 gallons of water. Then the sack is immersed for 5 or 10 minutes in lime water, made by slacking 1 lb. of lime in 10 gallons of water.

The seed is dried by spreading it in a thin layer on a clean floor, and by shovelling it over three or four times till dry.

This treatment is not recommended for oat smut.

3. Formalin treatment for the Stinking Smut of Wheat and the Loose Smut of Oats.

Things needed:—1 lb. bottle of Formalin, water, a barrel, and a coarse sack.

The 1 lb. of Formalin is dissolved in 40 or 50 gallons of water, and the sack of seed is immersed in the solution for about 20 minutes. Then the seed is spread out on a clean floor to dry.

4. Cold and hot water treatment for the Loose Smut of Wheat.

Things needed:—A barrel of cold water, a barrel of hot water, a large coarse sack, a thermometer, and a pail.

The seed is soaked for four hours in cold water, then allowed to remain four hours longer in the wet sack. It is then immersed for five minutes in hot water at  $132^{\circ}$ - $135^{\circ}$ , after which it is spread out immediately to dry. As some of the grains may be killed by this treatment, which is the only one recommended for the Loose Smut of Wheat, additional seed should be sown per acre.

### Good Apples for Early Winter.

E. P. Powell, New York State.

The Fameuse or Snow family is certainly one of the best to plant for early winter. You need, however, to add that McIntosh Red, if carefully handled and stored, will keep in good condition until March, but it gradually loses flavor after February 1. A tree in full bearing is one of the handsomest sights I ever saw. It averages about one-third larger than well grown Fameuse. In quality it is something remarkable. Lovers of fine fruit will class it at the head of all apples of the season.

Shiawasee, though an excellent apple, in flavor ranks decidedly below Fameuse and McIntosh. It is one of the cleanest, smoothest, handsomest apples in existence. It bears annually heavy crops; indeed is liable to bear itself to death. The fruit begins to fall as soon as it colors perfectly, and keeps on falling through September and October. If there are any apples left in December they will keep well in storage until January 15. It takes admirably in market. Owing to its tendency to drop, I should grow the Shiawasee in sod.

Another remarkable member of the Fameuse family, comes to us from Canada as Princess Louise. While insects do not seriously disturb either McIntosh or Shiawasee, they have a special fancy for Princess Louise. It is a November and December apple, and should be picked rather early from the trees. The color is a light yellow, with a strawberry check. In flavor it surpasses anything else of the season. The growth of the tree is upright, fairly spreading, and much like Shiawasee. McIntosh has more of a spreading growth. The wood of all these varieties seems to be quite hardy, and not subject to winter-killing. For an early winter set of apples I should want a barrel of Princess Louise, followed by a barrel of Fameuse, and later a barrel of McIntosh.

# The Farm Home



## Freckles and Tan

Say, what are these wee little freckles,  
And what in the world is the tan,  
That color and sprinkle all over  
The face of our dear little man?

The tan is a heavenly mixture  
Of happiness, sunshine and joy,  
That darkens the shade of the roses,  
That bloom in the cheek of our boy.

The freckles are scars from the kisses  
That angels in loving embrace  
Have pressed, in careless confusion,  
All over our little boy's face.

So here's to the boy with the freckles:  
The boy with the freckles and tan;  
These glorious imprints of heaven  
Have labeled him, God's little man.

### Young Girl Wanted.

A bright active young girl desiring a situation in the city as a domestic would hear of a good place by writing the Editor of THE FARMING WORLD.

### Food Fads.

By Warren A. Rodman, in American Kitchen Magazine.

The fountain of perpetual youth has been sought in every conceivable place from the everglades of Florida to the mind of the individual himself. But nowhere has it been more persistently sought than in that "which goeth into the mouth of man." We have canvassed the question, why we eat, how we eat, what and when and where, in every possible aspect and relationship. But we no sooner settle down to the conclusion that we have at last discovered a rational and wholesome diet than some new theory is propounded to prove our system all wrong. After riding a rough race on the new hobby for a time we are again dismounted by the strenuous force of some new fad, until one gains sufficient wisdom from experience to "eat what is set before him and ask no questions for conscience sake."

One man has written a very learned book to prove that every "ill that flesh is heir to" comes from eating salt. Of course, by the avoidance of salt every such ill will disappear. We all know that salt, in excess, is injurious. Hence this man has a basis of truth back of his theory. It is only in

the extreme to which it is carried that it is false.

Another man devotes two large volumes, aggregating seven hundred pages, to irrefutable arguments and convincing citations of facts to prove that the pernicious breakfast is the root of all physical evil. And he certainly does make a strong appeal to one's reason. This is, very briefly, the argument: During sleep is the period of recuperation, or rebuilding, in the body. The process of waste has practically ceased. Hence, until further waste has made nutriment necessary, it should not be taken.

The pros and cons of meat eating, or perhaps I ought to put it the other way and say vegetarianism, are very familiar because they have been so thoroughly threshed out, as far as the surface effects are concerned. To be sure, some of the deeper aspects have been touched upon very lightly, if at all. As humanity evolves toward a fuller realization of life in the large it will naturally eat less and less meat. We are drawing the line as to the kinds that are permissible much more closely than our aboriginal ancestors did. Certain forms of flesh, once looked upon as epicurean morsels, are now repugnant to all civilized people.

As there are those who outdo the "no breakfast" man by eating only one meal a day, so there are those who go far beyond mere vegetarianism by eating only those fruits, including grains, etc., which are ripened in the sun. The omnipresent peanut, the toothsome turnip, the odoriferous onion, the

succulent celery, the nutritious potato are scornfully discarded because they grow in the dark depths of the earth. It seems very reasonable to believe that those fruits and grains which have been drinking in the direct rays of the life-giving sun should have absorbed more vital energy than those grown in the dark, and that they should more readily give this energy back to the eater. Whatever the truth, that is essentially the theory. It sounds very attractive, certainly.

Then there is the uncooked food faddist who claims that cooking destroys the life germ and, therefore, makes cooked food innutritious. Undoubtedly there is in this, too, a certain amount of truth of value. In many cases even the cooking schools fail to improve on nature. I know a man who, on his own testimony, which I fully believe, has, for months past, lived on nothing but raw, whole wheat, oranges, apples and water, and all except the last in surprisingly small quantities. He does not look perfectly well, to be sure, but he looks so much better than when he lived on a fuller diet as to make one sure that the change was a positive gain for him, whatever it might be for any one else. He claims further that his capacity for work has been greatly increased.

Those questions, why, how, what, when, where we shall eat, dropped naturally into their proper order of importance. Answer the first and you have taken a long step towards answering the others. We eat for va-

rious reasons, only one of which is wholly valid. We eat because we have formed the habit, for sociability's sake, to tickle the palate, to make us fat if we are lean, and to make us lean if we are fat. We almost totally forget the true reason for eating, which is to furnish nourishment for the body, or more directly, to satisfy the cravings of hunger.

If the "why" has been properly answered, it goes far towards answering the "how." Eat so as to fit the food to be most easily digested. Chew, chew, chew until there is nothing left to chew. "Roll it like a sweet morsel under the tongue" and over the tongue until it is thoroughly mixed with the saliva. This is the only way to get the real richness of taste out of the food, and its full nutritive value. Above all, don't make a mill race of your œsophagus while eating.

I am not at all sure that the "when" ought not to change places with the "what" in importance, but let it stand. Eat what you want (and can get) provided you are governed by the "why" and the "how" and the "when." As I have said, your selection of food will adjust itself to your spiritual development. Eat when you are hungry and at no other time. Do not eat even then if you are very tired or excited or worried or angry. The state of the mind when eating is a powerful factor in determining the nutritive value of the meal. In some tests recently made it was found that the same food varied an hour or more in the time needed for its digestion according to the state of mind of the persons when eating, that is, whether they were joyful or morose. Never eat because the hands of the clock point to a certain hour. If you are sick, do not eat a mouthful until you really crave it, even if it takes a week. In the name of common sense give the system the rest it needs at such times. The fast days, rigidly observed, are doubly necessary if one indulges in feast days.

Eat where the atmosphere, physical, intellectual, moral and spiritual, is clear and sweet. The social feature of eating, while it has its value, is likewise a snare and a delusion. The social element in drinking is among its most dangerous features. In both cases it tends towards excess. When

under its influence Jefferson's suggestion is made emphatically true that "we seldom repent of having eaten too little." As to urging any one, man, woman or child, to eat, I can hardly conceive the circumstances under which it is not inconsiderate and unwise, to state it no more strongly. Put the person at ease and he will eat fully as much as is necessary. When hunger is the appetizer all wholesome food is delicious to the taste.

In spite of the great emphasis usually laid on it, eating is only one factor in the problem of health. Exercise and rest, work and play, deep breathing, and above all, a serene mind, are also essentials. When one learns to depend on the higher powers within for guidance these external matters readily adjust themselves in their natural places of subordination, where they harmoniously co-operate in the production of that ideal condition to which we look forward under the name of perfect health.



No crop can be grown without Potash. Supply enough Potash and your profits will be large; without Potash your crop will be "scrubby."

Our books, telling about composition of fertilizers best adapted for all crops, are free to all farmers. GERMAN KALI WORKS, 63 Nassau St., New York.

ARTICHOKES FOR SEED.

We have in stock a large quantity of artichokes which we are offering for sale. They are the most profitable food that can be grown as a vegetable food for hogs with the least amount of work.

BRETHOUR & SAUNDERS, Burford, Ont.

Gregory's Seed

For nearly half a century Gregory's Marblehead seed on hundreds of thousands of farms, have been a synonym for purity, freshness, and honest dealing. The original head of the firm still continues to carefully guard their fine reputation, and is annually selling to tens of thousands of their children the same high quality of seed he sold the fathers. Our new Vegetable and Flower Seed Catalogue now ready-free to everybody. The worthy novelties of the season are honestly described.

J. J. H. GREGORY & SON, Marblehead, Mass.

W Ison's High Glass Scales

Special Offer for April

2000 lb. Scale Drop Lever.

Every Scale Tested.

This offer is for FARMING WORLD readers only.

Diamond Steel Bearings

Get Prices now C. WILSON, & SON

50 Esplanade Street E., TORONTO



WRITERS, CORRESPONDENTS or REPORTERS

Wanted everywhere. Stories, news, ideas, poems, illustrated articles, advance news, drawings, photographs, unique articles, etc., purchased. Articles revised and prepared for publication. Books published. Send for particulars and full information before sending articles.

The Bulletin Press Association, New York.



3803 Kimona or Lounging Robe, 32, 36 and 40 in. bust.

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

BELL PIANOS AND ORGANS



Built to last a lifetime By the Largest Makers in Canada



BELL is the Musician's Favorite

The BELL ORGAN AND PIANO Co., Limited, Guelph, Ontario

Catalogue No. 41 Free

# The Farming World

**A PAPER FOR FARMERS AND STOCKMEN.**

Publisher, D. T. McAINSH.  
Editor, J. W. WHEATON, B.A.

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 publishers 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 address 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.

**Discontinuance.**—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

## Business Notes.

Stock advertisements, page 957 and 958.

On page 932 appears a table of increased capacities for the 1901 improved Alpha de Laval Baby Separators. Write the Canadian Dairy Supply Co. and get their prices.

Creamery Package Co. of Chicago, Ill., have opened up a Canadian branch at Cowansville, Que. Everything in creamery line can be procured from this reliable firm. See their advertisement on page 932.

Greatest medicine ever made. This is the mind of Mr. W. A. Douglas of Maple Creek, Ont., who writes: Enclosed find express order for \$3, for which please send me two bottles of Gombault's Caustic Balsam. Have been a constant user of this for a number of years and think it is the greatest medicine ever made.

Sheep-owners should send at once to Lyman Bros., Toronto, and take advantage of their offer. Any one bringing the advertisement to the warehouse, 73 Front street, Toronto, will receive full size quart bottle free of their celebrated Shepherd's Sheep Dip. This preparation destroys all diseased germs, disinfectant and antiseptic and is healing.

The enterprising firm of Matthew Moody & Sons, Terrebonne, Que., are appointing agents in Ontario for their line of labor-saving farm machinery, which they claim to be the best that can be made. Description of their mower appears on page 932. Moody pays the freight, delivered at your door free of charge.

Deering Harvester Co., under the able management of Mr. H. H. Hannon, is making business hum at their Toronto office. Thirty carloads were unloaded at this station alone. Farmers should keep up to the times and secure the latest harvesting machinery and be ready for the harvest when it comes. Write for their catalogue.

The genuine Tolton Pea Harvester, with new patent bancher at work, is shown in their advertisement on page 962. Every machine is warranted. Their motto is not how cheap but how good. Write to Tolton Bros., Guelph, Ont., and secure their catalogue.

Fifteen hundred pounds of oats chopped fine in one hour, with only three teams, is a pretty good record. This was done by Mr. John E. Walton, Danforth, Ont., on a model '99 Jollette chopper. Write to S. Vessot Co., 108 Front street east, and get full particulars. See advertisement on page 961.

**Rich and Poor Ailke** use Pain-Killer. Taken internally for cramps, colics and diarrhoea. Applied externally cures sprains, swollen muscles, etc. Avoid substitutes, there is but one Pain Killer, Peay Davis'. 25c. and 50c.

## Goes to the Northwest.

Mr. J. E. Hopkins, who since 1891, has acted as dairy superintendent for Nova Scotia for the Dominion Government, is to be transferred to take charge of the work carried on by the Dairy Commissioner at Moosejaw, N.W.T. In addition to carrying on the work at the Experimental Dairy Station, at Nappan, N.S. Mr. Hopkins has spent a considerable portion of each season among the factories of Nova Scotia. He has also acted as an instructor at the Sussex Dairy School, New Brunswick. He was the first superintendent of the school and continued to manage it till it was taken over by the New Brunswick Government in 1898.

Mr. Hopkins is a painstaking and conscientious teacher, and though his counsel and advice on dairy matters will be greatly missed down by the sea, our great Canadian West will be the gainer.



"Making Fast Time"

We are making a great record. No other fence can compete successfully with the "Page." We now make our own wire and so get just the peculiar quality we need. Hence, we now furnish a still better fence than ever. Prices lower this year. Better look into it. Not room here for price. We also manufacture lawn fences and gates. High in quality and low in price.

THE PAGE WIRE FENCE CO. (Ltd.)  
WALKERVILLE, ONT.



## Caution to Farmers.

THE strongest evidence of merit with any article, either manufactured or grown, is when imitated.

Last season we introduced a new and distinct type of Sugar Beet which we branded and named "ROYAL GIANT" to distinguish it from any other known sugar beet and to protect the grower from laving substitutes.

wrongfully sold him, have adopted the sealed package system.

Any sugar beet sold or offered as "Royal Giant" which is not done up in sealed packages and bearing our name is not Steele, Briggs' "Royal Giant" and should be refused by growers who wish our unprecedented new variety.

**Substitutes are dangerous to the growers' success and should be avoided.**

Price is the smallest consideration when a crop is at risk.

Ask your dealer for Steele, Briggs' "Royal Giant" Sugar Beet in sealed packages, (see cut.)

If you cannot procure it from your local merchant send to us direct.

Price per lb. 45cts.; in 5 lb. lots or more, per lb. 39cts.; 10 lb. lots or over, 35 cts. per lb. [carriage free.]

**THE STEELE, BRIGGS' SEED CO., LIMITED,**  
TORONTO, ONTARIO.

**ST. LAWRENCE COFFEE HOUSE**  
78 and 80 King St. East  
"RESTAURANT" TORONTO

Dinner for 20c.  
6 Dinner Tickets for \$1 Served from 11.30 to 3 and from 6 to 8  
Farmers and their wives visiting Toronto will find this to their taste.

**Farmers' Low Handy Waggons**



**Wide-Tire Wheels**  
Made to fit any axle.

They are lighter, stronger and much cheaper than wooden wheels.

**Wrought Iron Wheels with Wide Tires** should be used by every farmer, in fact by everyone who has a wagon.

**Dominion Wrought Iron Wheel Co.**  
9 and 11 Brock Ave.  
DEPT. A. TORONTO, ONT.

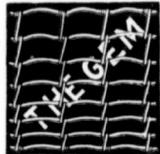


**ROCK SALT** for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**



**RIPPLEY'S COOKERS.**

Sell from \$10.00 to \$15.00. Made of best boiler steel. No flues to rust or leak. Can't blow up. Guaranteed to cook 25 lbs. feed in 2 hours, and to heat water in stock tanks 300 feet away. Will heat dairy rooms. Call for catalogue and prices mailed free.  
**RIPPLEY HARDWARE CO., Box 218**  
(U.S. Factory, Graston, Ill.) London, Ont.



**COILED SPRING and other FENCE WIRE**

for sale at lowest prices  
Also **GEM FENCE MACHINE**, the most practical device made for constructing wire fence.  
Write  
**McGregor, Banwell & Co. WINDSOR, ONT.**

**Milk Tickets**

**EVERY PATRON OF EVERY FACTORY**

Should insist on receiving a monthly statement of the milk delivered from his farm.

Our Ideal Milk Ticket is used by all the best factories. 25c. a hundred, \$2.00 a thousand.

Sample Card Free

Address—

**THE FARMING WORLD**

Confederation Life Building,  
Toronto

**Canadian Live Stock at Buffalo.**

Last week the rules and regulations for the live stock section of the Pan-American Exposition were drawn up and the judges selected. Canada was represented by E. B. Elderkin, Canadian Live Stock Commissioner to the Exposition, F. W. Hodson, Dominion Live Stock Commissioner, and A. P. Westervelt, secretary of the Live Stock Associations. The Ontario cattle will likely be selected from those shown at the Toronto Industrial in September. The Canadian cattle for the dairy competition are now in place ready for the six months' milking test.

**Land Seekers' Excursion.**

To accommodate the large number of people who have intimated their desire to acquire land in New Ontario the Commissioner of Crown Lands has arranged for a special fifteen day colonist excursion to Temiskaming. This excursion will leave Carleton Place on the regular C.P.R. train leaving that point on May 29 at 2.40 a.m. Very cheap rates are provided from all Ontario points touched by the C.P.R.

This excursion furnishes an excellent opportunity to parties desiring to see New Ontario, and coming as it does between the seeding and harvesting periods should enable many farmers to take advantage of it. For further particulars see announcement on page 950.

**Prepare Flower Beds With Great Care.**

It is important that the soil of one's flower beds should be properly prepared for the reception of seeds. It should be worked over until it is fine and mellow, and made rich enough to support a strong and vigorous growth of whatever is sown in it. Keep turning and stirring it until it is as fine and mellow as it is possible to make it. Incorporate the fertilizer used with it thoroughly. Manures not well worked into the soil are likely to bring about a "spotty" development which is far from satisfactory.—*Elen E. Rexford, in the May Ladies' Home Journal.*

**AS AND IDEAL GASOLINE ENGINES**

**BRANTFORD ENGINES.**  
STRICTLY HIGH GRADE.  
2 to 25 H.P.

The Perfected Product of Many Years' Experience.  
Also Makers of Steel Windmills and Water-works Outfits, Etc.  
WRITE US.

**GOLD SHAPLEY MUIR CO. LTD.**  
BRANTFORD, CAN.

**Good Butter**

Windsor Salt makes good butter because it dissolves easily and quickly, and, too, because the butter receives the full goodness of each flake of the Salt and the delicate flavor of pure Salt.

**Windsor Salt**

Best grocers sell it.

**THE WINDSOR SALT CO.**  
Limited  
WINDSOR, : : : : ONT.

**AGENTS WANTED**

**Ideal Steam Cookers** lead the World, and are recognized everywhere as the best. Housekeepers and cooking experts say its many advantages over all others are unquestioned. Cooks a whole meal over one burner, on gasoline, oil, gas, electric, coal or wood stove. Reduces fuel bills fifty per cent. Meats and poultry, no matter how tough, are made tender and palatable. No steam in the house. No offensive odors. Fuming impossible. **Whistle blows when Cooker needs more water.** Send for illustrated circulars. We pay express.



**The U.S. SPECIALTY CO.**  
Adelaide Street East - TORONTO, ONT.



The Drum in position.

**Deafness**

and HEAD NOISES

Relieved, the progress of Deafness stopped and sensitive ears protected by **THE COMMON SENSE EAR DRUMS**

which are made of soft rubber only; are absolutely invisible and comfortable, and can be worn at all times both day and night, by infants and children, as well as adults with perfect safety and comfort.

Call or write for pamphlet and testimonials showing benefit in cases of Catarrhal Deafness, Roaring and Hissing Sounds, Discharge from Ears, Relaxed, Sunken or Thickened Drums.

**The Common Sense Ear Drum and Medicine Co., Limited**  
Freehold Building, TORONTO, CANADA. (Mention this paper.)

**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 better suited to our advertising columns.*

**Horses.**

A sale of horses was held recently by Mr. Vine within the Horse Bazaar, Port Dundas-road, Glasgow, when 120 animals were catalogued, consisting principally of carriage and matching horses. There were also a number suitable for van and cart purposes, as well as a few cobs and ponies. All the animals showed well, being of fair substance and suitable ages. There was an extra large attendance of buyers from all parts of the country, and business was of a very satisfactory character and keen throughout. Carriage and draught horses secured the best demand, and sold dear. Ponies and cobs met a good selling trade and were cashed at high prices. Best class carriage horses, aged from four to eight years, realized from 30 to 40 gns.; secondary, eight to twelve years, 10 to 18g.; and inferior and used-up horses, down to 6g.; draught horses, six to eight years, made up to 35g.; secondary, 10 to 16g.; and inferior, 4 to 8g.; best vanners, 30g.; secondary, 8 to 16g.; and inferior, down to 3g.; ponies, 5 to 18g.; and cobs, 6 to 23g., according to substance, style and action.

Mr. Walter Park has sold the useful big stallions, Granite, 10765, and Royal Monarch, 10884, to Mr. Dalgleish, for exportation to Canada. Both are rising four-year-old, the former being bred by Mr. Matheson, Nether Aquithie, Aberdeen, and the latter by Mr. S. Neil, Torbanehill, Bathgate. Mr. Dalgleish also takes out with him the well-bred horse Canteen, 107112, by Sir Everard, from a dam by Belted Knight.

Mr. John Richards, Bideford, Prince Edward Island, sailed last week from Glasgow with four well bred Aberdeen-Angus animals recently bought in different parts of the country. One of these was a yearling bull by Delamere, bought at Perth. The others were heifers, one of them a Pride, being bought at Perth, and the other two at Birmingham. The animals were all of excellent breeding and quality, and are likely, with luck on the voyage, to do well in their new home.

Stud horses all over the country are getting on their rounds. In few cases does there seem to be any great dearth of servicable animals. The annual parade of horses to travel Morayshire took place the other day at Elgin, when two roadsters and seven Clydesdales were

shown. The roadsters were Bay Fireaway 3rd, the property of Mr. James Smith, Bishopmill, and Lord Waxholme, the property of Mr. John Massie, Ballindalloch. Both are well-bred, useful horses, but most attention was taken in the heavy animals, which made a very good show. Prominent among them was Mr. James Kirkpatrick's big solid horse, Royal Carrick, which had the Glasgow prize two years ago. This horse has been hired by a syndicate of breeders in the county, and is likely to be very popular with farmers. The other horses shown included Kippendavie Stamp, the property of Mr. Alex. Munro, of the City Stables; Pearl Oyster, the property of the Northern Stud Company; Sir Claude, the property of Mr. G. A. Ferguson, Sarradale, which has been hired by the Strathgry Club; King Dick, the Lower District of Moray Horse Breeding Association's horse; and Fashion's Fancy, the property of Mr. D. Clark, Blierie Castle, Forres. Mr. William Gray, Hempriggs, Alves, also showed his recent purchase, Whitburn Sentinel, by a well-known premium horse in a neighboring district, Montrave Sentinel. The horses generally were a very good lot, and were most favorably received by the farmers present. The annual parade at Morpeth, Northumberland, also took place last week. The heavy horses shown included Messrs. Mitchell's Royal William, a big powerful black. Mr. W. R. Trotter's Upshire Conqueror, a very handsome Shire animal, shown for the first time at Morpeth; the Duke of Portland's Gold Found, a horse which is much prized by the Bothal Estate tenants; Mr. Hall's The Factor, another useful horse; and the East Northumberland Society's Prince of Clay, hired from Mr. Herbert Webster. Several light footed horses were shown, amongst them the Duke of Portland's thorough-bred Kilmarnock, and Mr. Eustace Smith's Watson Gentleman and, a very nice type of the up-to-date Hackney, purchased from Mr. Nicholson, the Grange, Hull. The polo pony, North Dene, and the small pony Tom Tili, also came in for a large measure of attention, the latter, especially, showing his paces in great style.—*North British Agriculturist.*

**Sheep.**

Mr. Robt. McEwan, Byron, Ont., writes: "I have just added to my Southdown flock thirty grandly-bred ewes in lamb and two shearing ewes."

**OAK LODGE YORKSHIRES**



are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. **CHAMPIONSHIP HERD AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS** also sweepsakes on Dressed Carcass at Provincial Winter Show. We have on hand now a large herd of different ages. Our prices are reasonable and the quality is guaranteed to be choice. Write

**BRETHOUR & SAUNDERS,**  
Burford, Ontario

**CHAMPIONS OVER ALL. BLOOD WILL TELL.**  
**MAPLEWOOD HACKNEY STUD**  
Property of FREDERICK C. STEVENS, Attica, N.Y.,  
Again Furnished BOTH CHAMPIONS at the NATIONAL HORSE SHOW  
STALLIONS IN SERVICE FOR THE COMING SEASON ARE  
**Langton Performer, Clifton 2d, Fandango,**  
**ALL CHAMPIONS.**

Magnificent young stallions and mares sired by the above stallions and out of mares equally famous always on hand for sale. Beautiful, high acting carriage horses, bred, raised and trained at Maplewood, now ready for sale. Here you can purchase four-in-hands, pairs, tandems, single drivers, ladies' pairs and children's ponies. For further particulars address,  
**E. T. GAY, Manager, Attica, N.Y.**

**Shorthorns**

**SUNNYSIDE Shorthorns for Sale**

**5 BULLS, Eleven Months' Old**  
3 red and 2 roan carrying the blood of Also a few FEMALEs, all registered.  
**E. A. GARNHAM, | Straffordville, Ont.**

**SHORTHORN BULL**

Two choice bulls about a year old

**FOR SALE**

**JOHN McNAB,**  
Rockwood, Ont.

**T. Douglas & Sons, Strathroy, Ont.**

Breeders of

**SCOTCH SHORTHORNS**

(100 head to select from)

Offer for sale 11 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee—2881—, at head of herd. Farm one mile north of town.



**LARGE ENGLISH FOR SALE.**

**YOUNG** hears and sows carrying the blood of Baron Lee 4th, Bright Star (imp.), Enterprise and Highclere, on Bow Park, Teasdale and Snell females, with Allandale Boy 5875 and Royal Lad 3 d 4307 heading the herd.  
**S. D'YMENT, BARRIE, ONT.**

**GLEN CRESCENT SHORTHORNS AND OXFORDS.**

A few shearing rams by imported "Royal Windsor 5th" and one two-year-old bull for sale.

**J. W. WIDDFIELD, Uxbridge, Ont.**

**J. A. RICHARDSON, South Marsh, Ont., Breeder of Holsteins, Dorset Horned Sheep, Tamworth Swine.**

**E. PANNAECKER, Fairview Farm, Hespeler, Ont., breeder of reg. Holsteins. Stock for sale.**

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

**RETTIE BROS.**

**HOLSTEIN-FRIESIAN BREEDERS**

A few choice young animals for sale. **RETTIE BROS., NORWICH, ONT.**

**ABERDEEN ANGUS THOROUGHBREDS**

Three Young Bulls For Sale.

"Black Monarch," aged 18½ months; "Black Prince," aged 8 months; "Zimro Chief," aged 7 months. These are all bred from the well-known cattle of the "Hay Estate" farm of Angus, Ont. For further particulars write to "The Manager, Grange Farm," Clarksburg, or to C. W. Hartman, Clarksburg, Ontario.

**IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM**

10 Young Bulls from one month to four months, bred from Winnie R's De Kol.

**W. H. SIMMONS,**  
New Durham

**AYRSHIRES AND YORKSHIRES**

**FOR SALE.**

**SIX PURE-BRED AYRSHIRE BULLS** coming 1 year old, fit for service, and one coming 2 years old next August. All sired by "White Prince" (Imp.) except the one coming 2-years-old. As I am about renting my farm these bulls will be sold cheap if taken at once. Also a number of fine pure-bred Yorkshire Sows from one to four years old.

**JOHN H. DOUGLAS,**  
WARKWORTH, Ont.

**ALVA FARM  
GUERNSEYS**



THE  
TYPICAL  
DAIRY  
BREED.

Good Animals of both Sexes for Sale.

**Sydney Fisher,**  
KNOWLTON, QUE.

**Poultry**

**Parkhill Poultry Yard**

Offers Eggs from the best of stock of the following varieties: L. Brahmas, Black Langshans, W. and Barred Rocks, Golden Silver Laced and W. Wyandottes, Buff, Brown and W. Leghorns, S. S. Hamburgs, and Golden Seabright. \$1.00 per 13 eggs. Pekin Duck eggs, \$1.00 per 13. M. B. Turkey eggs \$2 per 9.

**D. A. GRAHAM, Parkhill, Ont.**

**Yorkshire Hogs,  
White and Barred Rocks,  
Rouen Ducks and Bronze Turkeys.**

Eggs from White and Barred Rocks and Ducks, \$1 per setting; Bronze Turkey eggs \$2.50 per setting.  
**T. J. COLE,**  
Bowmanville, Ont.

**ENGLESIDE FARM**

Eggs for hatching from high-class poultry. Ideal types of table fowl with great laying and exhibition qualities.  
Barred and White Plymouth Rocks, Silver-Laced and White Wyandottes.  
Selected matings from noted breeders in the United States and Canada, including A. C. Hawkins, Lancaster, Mass. Prices, \$1.00 and \$1.50 per setting. Liberal reduction on incubator lots.

**J. W. NEWMAN,**  
Brockville, Ont.

Box 457  
Phone 216



**CYPHERS  
INCUBATORS  
and  
BROODERS**

Have no equals. In use in seven experimental stations in Canada. Warranted to outmatch any other machine on the market.

A girl or boy nine years of age can run it. Perfectly safe.

**C. J. DANIELS, 196 River St., Toronto**  
Sole Canadian Agent.

**The Safety Incubators  
AND BROODERS**

Are the best and cheapest you can buy. It will pay you to write for full particulars before placing your orders.

Address the Manufacturer,  
**J. E. MEYER,**  
Kossuth, Ont.

**About Grafting.**

Grafting should be done in the early spring as soon as the sap begins to rise. It should be done in the following manner. Cut off the stalk to be grafted smoothly, and split it through the middle sufficient to take the scion. Hold the split apart by means of a small wedge put in the middle of the stalk. Cut two pieces from the scion containing two buds each. Sharpen them so that they may be easily put in place. Set one on each side of the wedge, so that the sap of the scion will cross the sap of the stalk, remove the wedge and pour grafting wax over the end of the stalk and along the split, so as to prevent the sap from escaping. The wax should be warm when applied. Trees grafted in this way nearly all grow.

As to the wax to be used I will give the following recipe for making it: Heat one pound of resin, one-fourth pound of bees-wax, and two pounds of tallow together, and thoroughly mix them. This must be heated when used.—*A. J. Legg.*

Mrs. Fangle—The papers mention a man who has cooked his own breakfast for 15 years.

Mr. Fangle—He must have been very hungry when he finally got it done.

**New Ontario**

**LAND SEEKERS'  
EXCURSION To  
TEMISKAMING**

From C.P.R. Stations in  
Old Ontario, on

**Tuesday, May 28th**

Leaving Carleton Place at 2.40 on the morning of Wednesday, May, 29th.

**Tickets Good for  
Fifteen Days**

Certificates must be procured from the undersigned.

Send for circular giving very low rates.

**THOS. SOUTHWORTH**  
Director of Colonization  
Parliament Buildings, TORONTO

**Sheep**

**OXFORD DOWN SHEEP**

Durham Cattle, "Milking Strains"; Yorkshire Pigs; Plymouth Rock Poultry  
**John Cousins & Sons,**  
Harriston, Ont.



**SHAWANOO HILL FLOCK**  
of Cotswolds

We breed for Mutton and Wool  
**Have for Sale**  
50 shearing rams, 30 shearing ewes, and 100 lambs, good quality and excellent breeding.

**JOHN RAWLINGS,**  
Forest, G. T. R. **RAVENSWOOD P.O.**  
ONT.

**OXFORD DOWN SHEEP**  
J. H. JULL & SONS.

Yearling Rams and Ram Lambs, and Ewes of all ages, for sale. Prices reasonable. Our flock is headed with the best imported rams in Canada—prize-winners in England, first prize at Toronto Industrial and all leading shows in Canada.  
**Brant and Plain View Stock Farms,**  
Mt. Vernon, Ontario, Can.

**SMITH EVANS, GOUROCK, ONT.**

Breeder and Importer of registered Oxford Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited.



**SMITH EVANS, : GOUROCK, ONT.**

**SHROPSHIRE**

Bred from the best Imported Stock.  
Also Silver and White Wyandottes.  
**W. D. MONKMAN, Bond Head, Ont.**

**Cheese  
and Butter**

Makers of these articles, in many instances, do not pay the necessary attention to the quality of the salt they use. Some people think that "salt is salt," and it does not matter where it comes from or who makes it. This is a great mistake, for it is essential that to produce the best Butter or Cheese nothing but the purest salt should be used.  
The number of prizes obtained by users of

**"RICE'S or COLEMAN'S" DAIRY SALT**

at the various exhibitions is conclusive proof that these brands of salt stand unrivalled. For prices, etc., address

**R. & J. RANSFORD,**  
Clinton, Ont.

**ONTARIO VETERINARY COLLEGE, Limited**  
Temperance St., Toronto, Can.

Affiliated with the University of Toronto.  
Patrons: Governor General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Fees, \$65 per session.

**PRINCIPAL, PROF. SMITH, F.R.C.V.S.,**  
TORONTO, CANADA

**LIVE STOCK LABELS**  
Send for circular and price list.  
**R. W. JAMES,**  
Bowmanville, Ont.

# Market Review and Forecast

Office of THE FARMING WORLD,  
Confederation Life Building,  
Toronto, May 6, 1901.

There has been an improvement in general trade during the week, though there are complaints in certain sections that the volume of transactions is not up to expectations. On the whole, however, the trade of the country is on a healthy basis with prospects good and confidence unimpaired. Money is in better demand and all surplus funds seem to be in demand for legitimate commercial enterprises. Call loans are steady at 5 per cent., some refusing new business at that figure.

### Wheat.

There has been rather exciting times in speculative circles during the week. In fact at Chicago wheat, corn and oats have been on the boom. The market just at this stage is always governed more by the future outlook than present conditions. Reports from several States of a failure of the crop have excited the market somewhat. But present supplies are large, as the following comparative table shows:

|                              | 1901.      | 1900.      |
|------------------------------|------------|------------|
|                              | Bus.       | Bus.       |
| Visible supply.....          | 48,355,000 | 52,472,000 |
| World's amount in sight..... | 91,395,000 | 92,560,000 |

The decrease in the supplies for the corresponding week last year were even larger than for the past week, as the shrinkage in the visible supply then was 2,415,000 bushels, and that of the world's supply in sight 3,695,000 bushels.

The English market has ruled firmer and higher. The speculative advance at Chicago has checked the export trade. There is a good demand here with light offerings and the market firm at 67 to 68c. for red and white, 66 to 67c. for goose and 69c. for spring wheat at Ontario points. On Toronto farmers' market red and white bring 73c., goose 69c. and spring 70c. per bushel.

### Oats and Barley.

May oats have advanced nearly 5c. per bushel during the past two weeks at Chicago, due largely to the speculative boom. Canadian markets, though quiet, are firmer and higher than a week ago. Here quotations are 31c. for No. 1 white east, and 30½c. for No. 2 white middle freights. On the farmers' market oats bring 35½c. per bushel.

There is a fair demand for No. 2 barley for export at a slightly higher rate. Toronto quotations are 44 to 49c. as to quality and point of shipment. On the farmers' market barley brings 47c. per bushel.

### Peas and Corn.

The pea market keeps steady, with quite a little export business doing. Quotations here are steady at 65c. middle freights. On farmers' market here peas bring 65c. per bushel.

Corn at Chicago has advanced 10c. during the past two weeks, which has shut off export trade. American No. 3 yellow is quoted at 51c. Toronto.

### Bran and Shorts

Ontario bran at Montreal is quoted at \$16 to \$16.50, and shorts at \$17 to \$17.50 in car lots. City mills here quote bran at \$16 and shorts at \$17 in car lots f.o.b. Toronto. At milling points west shorts are quoted at \$14 to \$15, and bran at \$13 to \$13.50.

### Potatoes.

Car lots are selling at Montreal at 40 to 42c. per bag, and 50c. in a jobbing way. Car lots on track sell here at 30 to 32c. per bag. On farmers' market potatoes bring 30 to 35c. per bag.

### Eggs and Poultry.

The egg market keeps steady, though the English market is lower and English buyers are holding off. The demand keeps good,

however, and sufficient to absorb all surplus stocks so that there is no large accumulation anywhere. Montreal quotations rule at 11 to 11½c. for fresh eggs in case lots. The market here is steady and case lots sell freely at 10½ to 11c. On Toronto farmers' market eggs bring 11½ to 13c. per dozen.

On the farmers' market chickens bring 60c. to \$1 per pair, and turkeys 12 to 13c. per lb.

### Hay and Straw.

The Government is still filling orders of baled hay for the war authorities. Montreal quotations for car lots are \$11 to \$11.50 for No. 1, \$10.50 to \$11 for No. 2 quality, and \$9 to \$9.50 for clover. At country points east the ruling figures are \$10 to \$10.50 for baled hay in car lots. Prices are unchanged here at \$9.75 to \$11 for car lots on track. On Toronto farmers' market hay brings \$13 to \$15, sheaf straw \$9, and loose straw \$5 per ton.

### Cheese.

The old make of cheese is pretty well worked off, and attention is now being given to the new product. Total exports for the year ending April 30, 1901, were 2,574,517 boxes as compared with 2,436,212 boxes for the year ending April 30, 1900, showing an increase of 138,305 boxes.

At this time last year new cheese was selling at Montreal at 11 to 11½c. for Western and kept at about that range until the second week in May, when prices commenced to decline until Western sold down to 9½ and 9.58c., but these were the lowest figures reached in 1900, and in September of that year they advanced to 11½ and 11.58c. for finest Western, but the wind-up prices of the make of 1900 a week or so ago, were 9½ to 9¾c. for finest Western white, and 8¼ to 9c. for colored.

Most of the last half of the April make has been disposed off at 8 to 8½c. at the factories. A better feeling is noticeable in England, and a better inquiry for new folder goods has set

in on this side. On Thursday, at Brockville, sales were made at 8¾c. for white and 8c. for colored. Montreal quotations are firm at 8¼ to 8¾c. for fidders.

### Butter.

On the whole the creamery butter market is in about the same position as it was last year at this time. In both cases there was a considerable decline during April. The *Trade Bulletin* reviews last week's market as follows: "The market is steady for choice fresh creamery, and sales were made yesterday and to-day of 250 boxes at 17 to 17½c. Boxes at present are scarce, but are expected to be more plentiful next week. Sales of between 100 and 125 tubs were made yesterday at 16½ and 16¾c., but the same class of creamery in tubs sold to-day at a fraction over 17c. We have heard of a very choice lot of fresh creamery for export, but 17½c. is a fair outside rate to-day for boxes. A nice lot of choice fresh Western dairy sold at 16c. and a small lot of Eastern Townships dairy at the same figure. Most of the old stock has been worked off. The exports via the winter ports last week comprised sample lots amounting to 350 pkgs."

Creamery is steady here at 19 to 20c. for prints and 18 to 19c. for tubs and boxes in a jobbing way. The demand for dairy has fallen off and choice lots are quoted easier at 12½ to 13¾c. per lb. On Toronto farmers' market butter brings 14 to 18c. per lb.

### Cattle.

The cattle markets continue active, and though receipts have ruled large, there seems to be a good outlet for all supplies of good quality. At Toronto cattle market on Friday the run of live stock consisted of 1,155 cattle, 1,500 hogs, 100 sheep and 25 calves. The quality of fat cattle, especially butchers', was not as good as it should be at this season. There are not enough of the choice, well-finished animals to supply the demand. Trade

U S U S U S U

## Both Theory and Practice

Prove the Superiority of the U. S. Cream Separator



**In Theory**, its one piece frame, enclosed gears running in oil, few parts, three-separators in - in bowl, and superior construction in general make it the

**Cleanest skimming, most substantial, safest, easiest operated, and most durable Separator made.**

**In Practice**, it is daily proving the correctness of our theory, as testified to by pleased users everywhere. If interested, write for catalogues containing hundreds of letters to this effect.

Made in all sizes for either the Dairy or the Creamery.

**VERMONT FARM MACHINE CO., Bellows Falls, Vt.**

REMEMBER, there is No Duty on Improved U. S. Separators shipped into Canada.

215

S U S U S U S

was good, with prices firm at quotations. Several outside dealers were present looking for butchers' cattle. Many farmers who were looking for feeders could not get them, as the demand was greater than the supply. Nearly everything in all the classes was bought up by noon.

**Export Cattle.**—Choice loads of these are worth from \$4.70 to \$5.20 per cwt. and light ones \$4.40 to \$4.60 per cwt. Heavy export bulls sold at \$3.85 to \$4.25, and light ones at \$3.40 to \$3.50 per cwt.

**Butchers' Cattle.**—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs. each, sold at \$4.30 to \$4.60 per cwt., good cattle at \$4.00 to \$4.20, medium \$3.70 to \$3.90, and inferior to common at \$3.00 to \$3.40 per cwt.

**Feeders.**—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.25 to \$4.60, and other quality at \$3.75 to \$4.00 per cwt. Light steers, weighing 900 to 1,000 lbs., sold at \$3.75 to \$4.00 per cwt.

**Stockers.**—Yearling steers, 500 to 800 lbs. each, sold at \$3.25 to \$3.50, off colors, and inferior quality at \$2.50 to \$3.00 per cwt. Yearling bulls, 600 to 900 lbs. each, sold at \$2.00 to \$2.50 per cwt.

**Calves.**—These are lower at Buffalo, choice to extra bringing \$5.25 to \$5.50 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

**Milk Cows.**—These sold at from \$30 to \$45 each. Choice cows would bring more money.

**Sheep and Lambs.**

Prices were firm at \$3.50 to \$4.50 per cwt. for ewes and \$3 to \$3.50 for bucks. Yearling grain-fed lambs sold at \$5.50 to \$6 per cwt., and barnyards at \$4.50 to \$5.50. At Montreal yearling lambs sold at \$6 to \$6.50 per cwt. with the wool on, but clipped lambs sold only at \$5 to \$5.50. Spring lambs have sold there at \$2.50 to \$8 each as to quality.

**Hogs.**

The hog market shows little change from last week. On Friday select bacon hogs sold at \$6.75, and light and thick fats at \$6.25 per cwt. Unculled car lots sold at \$6.60 to \$6.70 per cwt.

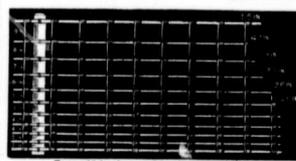
The Wm. Davies Co., Toronto, will pay \$6.87½ this week for select bacon hogs and \$6.37½ for light and thick fats.

Bacon hogs at Montreal have landed at \$7 per cwt. The *Trade Bulletin's* London cable of May 2, re Canadian bacon, reads thus: "The market has entered a weaker phase under a slack demand, and prices in consequence have declined 2½ per cwt., but as stocks are not heavy holders are not forcing business. No. 1 Canadian bacon is quoted at 56½ to 58½, some fancy lean cuts 59½ to 60½.

**Horses.**

There has been an improved demand for heavy draught horses during the past week at Montreal, and quite a few have changed hands at prices ranging from \$150 to \$225. A match team of young heavy workers, four-year-olds, for railway dray, sold for \$375. Light driving and saddle horses are in better demand, and we learn of sales of over 20 of this class of animals at from \$85 to \$125 and \$150 each. There is also a fair enquiry for carriage horses, a match pair of beautiful chestnuts bringing \$560. Business must be better in some lines, as the buyer of this pair of horses sold out his carriage and pair about two years ago because business would not warrant him in keeping them. At least that was the reason he gave for selling them. Carriage horses range from \$150 to \$300 each.

Over two hundred horses were sold at Grand's last week by public and private sale. On Tuesday 98 rejected and private remounts were sold, and averaged \$85 each. On Friday about 40 horses, mostly drivers and general purpose, sold at \$35 to \$125 each. Some high-class drivers and good general purpose horses brought good prices. The best demand just now is for high-class carriage horses and really good drivers. Lieut.-Col. Dent, who has been inspecting horses here for remounts, selected only 160 out of 373 submitted, thus leaving 213 rejected horses.

|  |                               |                                |
|--|-------------------------------|--------------------------------|
| <b>LOWEST</b><br>Price.  | <b>HIGHEST</b><br>Efficiency. | <b>GREATEST</b><br>Durability. |
| <b>AMERICAN</b>  |                               |                                |
| <b>FIELD AND HOG FENCE.</b>  |                               |                                |
|  <p>Now is the time to put it up. It will stay up a lifetime. All best steel wires—heavily galvanized—fully guaranteed. Resists animals, resists rust, provides for expansion and contraction. Sold by agents everywhere. If no agent in your town write to the makers.</p> |                               |                                |
| Stays 12 inches or 6 inches apart.   |                               |                                |
| <b>AMERICAN STEEL &amp; WIRE CO., Chicago or New York.</b>   |                               |                                |



**IF PEOPLE ONLY KNEW  
THE ADVANTAGES OF USING OUR  
"SAFE LOCK"  
METAL SHINGLE**

for roofing houses, churches, barns, etc., they would not consider wooden shingles or any other style of roofing. "Safe Lock" shingles are very durable, have no parts to get out of order, and make a fire and lightning proof roof, very ornamental in appearance.

We mail free model samples, catalogue and estimates.

**THE METAL SHINGLE AND SIDING CO.,  
PRESTON, ONT. LIMITED.**

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 Diploma 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.

## A Sense of Safety

and comfort is possessed by every rider of a  
"CUSHION FRAME"  
Bicycle.



The Cushion Frame not only saves the rider but lengthens the life of the wheel.

The distance between the pedals and saddle always remains the same, so that the rider's position is not always changing as with a spring saddle or spring seat post. It makes all roads seem like an asphalt street.

It is absolutely unequalled in the history of bicycle inventions.

Can be had in connection with Massey-Harris, Cleveland, Bramford and Perfect Bicycles.



**AGENTS EVERYWHERE  
WRITE FOR CATALOGUE**

**Canada Cycle and Motor Co., Limited,  
TORONTO, CANADA.**

From what we can learn there was no need of such wholesale rejection. But farmers should remember this when selling for remount purposes.

**Toads as a Medicine.**

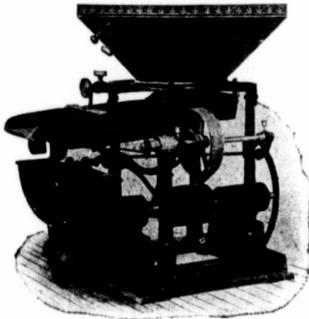
Harvey Sutherland in "Ainslee's."

"Out of the queer use of a common creature regarded as most potent in old-time medicine there came the most surprising and nearly the most important of inventions. Every schoolboy knows that a toad can cause warts or make the cow give bloody milk, but not everybody knows that toads are also powerfully medicinal. It is a fact. Martin Luther says so. These are his very words: 'Experience has proved the toad to be endowed with valuable qualities. If you run a stick through three toads, and, after having dried them in the sun, apply them to any pestilent humor, they draw out the poison, and the malady will disappear.' Pope Adrian always carried a bag about his neck containing dried toad, pearl, coral, gum tragacanth, smarage, and other articles of junk. It did him a power of good, he said. It was all that kept him up. And lest you think that they only did that hundreds of years ago, I want to say here that when my father was a boy and suffered from quinsy they used to tie live frogs about his throat. The frogs nearly clawed the hide off. They did not cure the quinsy, but that's a detail."

**Butter-Making in New Zealand.**

A number of experiments in butter-making with non-pasteurized and pasteurised cream were carried out by the Dairy Commissioner, Mr. J. A. Kinsella, at the Waverley dairy factory last year. The several lots of butter were frozen and stored at twenty-five degrees. Examinations were made by experts at one, three, and six months from date of manufacture, the final judging being performed by the Government graders gathered in conference. At the time of manufacture there was practically no difference in the flavor and quality of lots under comparison. After storage, however, it was found—1. That the ripened cream produced a better keeping article of butter than the sweet or unripened cream. 2. That the pasteurized cream scored decisively over the non-pasteurized. 3. That the butter made from the cream properly ripened with a starter had a superior flavor and showed better keeping quality than that from the self ripened cream.—*New Zealand Dairyman.*

An American staying with his wife at the Hotel Cecil in London retired somewhat late. He tapped at the door of what he imagined to be his room; and, finding it locked, he called, "Honey!" No answer came, and he called again and more loudly, "Honey!" This time a reply came, and in a male voice. "Go away, you blithering idiot! This is a bathroom not a blooming beehive!"—*The Beacon.*



**"Joliette"**

Is the Only  
Chopper ::

WRITE FOR PARTICULARS.

S. VESSOT & CO.,  
108 Front St. East, TORONTO  
Factory at Joliette, Que

**Spraying Potatoes**

with the

*SDRAMOTOR*

20 ..  
ACRES  
DAILY

Seems incredible that farmers should use old methods, when they can kill both Potato Blight and Bugs, in one operation. One man with a SDRAMOTOR can spray 20 acres in a day.  
The SDRAMOTOR drives out a perfect mist spray, thoroughly covering the plants, and destroying every vestige of fungi and insect life. It's the only way to grow potatoes profitably, and will double the crops at a trifling cost.  
Send us your name, and we'll mail you free an 84 page Illustrated Treatise on Spraying, and full particulars of the SDRAMOTOR, which is saving the farmers of Canada thousands of dollars annually. It will spray other things too.

The SDRAMOTOR Co., London, Ont

Spraying with the SDRAMOTOR will entirely eradicate Mustard. Full particulars in our book on spraying.



**REBUILT  
TYPEWRITERS**

We have in stock at present  
and offer for sale rebuilt  
machines as follows:



THE UNDERWOOD

|                              | Cash.   | Time.   |                         | Cash.   | Time.   |
|------------------------------|---------|---------|-------------------------|---------|---------|
| No. 2 and 3 Caligraphs ..... | \$30 00 | \$35 00 | No. 6 Remington.....    | \$75 00 | \$80 00 |
| No. 5 Blickensderfer .....   | 25 00   | 30 00   | No. 1 Yost .....        | 35 00   | 40 00   |
| No. 1 Williams .....         | 40 00   | 45 00   | No. 1 New Yost.....     | 45 00   | 50 00   |
| No. 1 Smith-Premier .....    | 50 00   | 55 00   | New Franklin .....      | 40 00   | 45 00   |
| No. 2 Smith-Premier .....    | 75 00   | 80 00   | Barlock .....           | 40 00   | 45 00   |
| No. 1 Jewett .....           | 50 00   | 55 00   | Latest Oliviers .....   | 40 00   | 45 00   |
| No. 2 and 3 Jewett .....     | 75 00   | 80 00   | Hammond Ideal .....     | 25 00   | 30 00   |
| No. 2 Remington.....         | 50 00   | 55 00   | Hammond Universal ..... | 40 00   | 45 00   |

A good many of these machines are practically as good as new. We have ten expert mechanics in our Repair Room; several these men have been in the employ of prominent typewriter factories in the United States for many years, and are thoroughly familiar with all makes of machines. We mention this fact, since we are the only concern in Canada thoroughly equipped for this work.

**ALL MACHINES CARRY A YEAR'S GUARANTEE**

**Creelman Brothers' Typewriter Co.**

15 ADELAIDE STREET EAST, TORONTO

**NO COMBINE**

# The Atlantic Refining Co.

**TORONTO.**

**Elastic Carbon Paint**

Especially adapted for farm buildings; proof against weather, fire and rust; will not crack, run, blister or scale; will stop leaks, and last a lifetime; great protector for every thing from a hot boiler front to a plow, bridge, roof and fence. Our immense buildings are covered with Metallic Roofing and Siding and painted with **ELASTIC CARBON PAINT**. Write us for prices. We have received thousands of valuable testimonials from Canadian and American customers. **Manufactured in Canada only by THE ATLANTIC REFINING COMPANY, Manufacturers and Importers of Illuminating and Lubricating Oils, Grease and Specialties, Foot of Jarvis Street, TORONTO, CAN.**

## Know Lump Jaw

Be able to detect Lump Jaw when you see it; the safety of your herd may depend upon it. Know also how to thoroughly cure it, and how to cure a score more of the most stubborn ailments of cattle and horses. Send for our **FREE ILLUSTRATED PAMPHLET** on Lump Jaw and its cure, together with instructions for promptly removing Spavin, and all other enlargements by use of

**Fleming's Lump Jaw Cure.**



Branchton, Ont., July 20, 00  
Messrs. Fleming Bros., Two applications completely cured a discharging tumor on a two year old heifer, and 8 or 9 applications removed a hard painful tumor from the abdomen of another. The tumor was 11 1/4 inches in size and 2 1/2 inches thick, and so painful we expected to lose her. One application almost removed the pain. We used Lump Jaw Cure on it as a last resort. We would not be without your remedy under any consideration.

**HUGH WHITE.**  
Price \$2 per bottle, or three bottles for \$5. Money back if fails. At druggists, or sent prepaid to any address. **Free**—Our Illustrated Pamphlet to readers of this paper.

**FLEMING BROS., Chemists**  
Room K. 58 Bay Street. TORONTO, Ont.

## Maxwell's "Favorite" Churn.



| Patent Foot and Lever Drive. | No. | Holds  | CRUKES      |
|------------------------------|-----|--------|-------------|
| •                            | 0   | 8 gal. | 4 to 5 gal. |
| •                            | 1   | 10 "   | 1 to 2 "    |
| •                            | 2   | 15 "   | 2 to 3 "    |
| •                            | 3   | 20 "   | 3 to 4 "    |
| •                            | 4   | 26 "   | 4 to 12 "   |
| •                            | 5   | 30 "   | 5 to 14 "   |
| •                            | 6   | 40 "   | 8 to 20 "   |

**Superior in Workmanship and Finish**

**DAVID MAXWELL & SONS**  
St. Mary's, Ontario, Canada.

## HONORS ENOUGH FOR A NATION

29 Awards



Paris, 1900

More and Greater Honors than were Ever Accorded Any Exhibitor at Any International Exposition.

## Deering

*Ideal Binders, Mowers, Corn Binders, Hay Rakes, Corn Husker and Shredders, Binder Twine and Harvester Oil.*

## Deering Harvester Company

Main Office and Factory: Chicago, U.S.A. Canadian Branch Houses: Toronto, Montreal, London, Winnipeg.

## THE WONDER OF THE AGE

ALL EYES ARE ON THIS INVENTION  
Patented 1893, '95, and '96 **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, with all but **self-delivering Bunchers.**

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.**