

THE Farming World

Address
THE FARMING WORLD

A PAPER FOR FARMERS AND STOCKMEN

CONFEDERATION LIFE
BUILDING
TORONTO



The U. S. Cream Separator

HOLDS
WORLD'S RECORD.

50 CONSECUTIVE RUNS, Average test of skim milk, .0138

At the Pan-American, Model Dairy 1901.

No other separator has ever been able to approach this record.

SEND FOR FREE DESCRIPTIVE PAMPHLETS.

VERMONT FARM MACHINE CO., BELLOWS FALLS, Vt., U.S.A.

SEED SENSE

The Robert Evans Seed Co. have a sensible up-to-date way of dealing with sensible people. They furnish seeds that produce good crops. They fill orders promptly and guarantee safe delivery by mail.

THREE WINNERS

Evans' Improved Mammoth Saw Log Mangel. Extract from Ontario Agricultural College Report: Among twenty-seven varieties of mangels which we have grown for eight years in succession, the Evans' Improved Mammoth Saw Log stands at the head of the list in yield, with an average of 23.9 tons per acre. Color red, roots massive, straight and regular in size, broad shouldered, small top, free from coarseness and of most excellent feeding and keeping qualities. Per 5 lbs. or over 18c. per lb., 1 lb. 20c., 1/2 lb. 10c.

Evans' New Ontario Purple Top Swede. The hardest and heaviest Swede in cultivation; for weight, size and quality it is unequalled. One trial will establish its great superiority. Per 5 lb. lots and over 20c. per lb., 1 lb. 23c., 1/2 lb. 10c.

Evans' 50c. Vegetable Collection. The Vegetables in this collection are displayed on the front of our Catalogue cover, and are among the best in our list for a small family garden. 1/2 pint Beans, Wardell's Kidney Wax. 1/2 oz. Beet Egyptian Dark Blood Red. 1/2 oz. Cabbage, Autumn King. 1/2 oz. Carrot, Chautenay Half Long. 1-16 oz. Cauliflower, Early Snowball. 1-8 oz. Celery, Evans' Triumph. 1/2 oz. Cucumber, improved Long Green. 1/2 oz. Lettuce, Evans' Hamilton Market. 1/2 oz. Mink Melon, Netted Gem. 1/2 oz. Onion, Yellow Globe Danvers. 1/2 pint Peas, Evans' Extra Early. 1/2 oz. Radish, New Rapid Forcing. 1-8 oz. Tomato, Dominion Day.

Robert Evans Seed Co., Limited, Hamilton, Ont.

BEAUTIFUL CATALOGUE FREE.

Add 4c. per lb. on Mangle and Swede if wanted by mail.

USE

MICA ROOFING

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

Send for Sample to

MICA ROOFING CO.

101 Rebecca Street

HAMILTON, CANADA

Look for our Announcement in next week's special issue.

Thomas-Phosphate

I will deliver this valuable Phosphate at any station in Ontario at one cent per lb. two bag lots and upwards. Cash with order. Special prices on car lots.

ALFRED BOYD

28 Toronto Street, - Toronto

Dealer in Nitrate of Soda, Bone Meal, Sulphate of Potash, Muriate of Potash, Kainit, etc. etc.

Always Mention THE FARMING WORLD when writing to Advertisers

**LESS WORK AND
MORE MONEY
IN THE DAIRY**



**De Laval
Cream Separators**
A boon to
The Farmer's Wife
250,000 now in use
Earn \$10.- extra
per cow each year
Highest Award at Paris
Write for catalogue

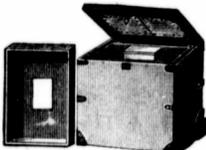
THE DE LAVAL SEPARATOR CO.
NEW YORK MONTREAL
CHICAGO 77 York St. WINNIPEG
SAN FRANCISCO TORONTO PHILADELPHIA



TRADE "DAISY" MARK
Can be fitted with adjustable Brakers as shown in cut.
Notice—Two bolts only to place to set up.
Our new improved Steel Stand. Tempered Steel Cased Bicycle Ball Bearings, with four nicely fitted wheels, adjustable feet for holding it firm when churning.
Over 80,000 in use.

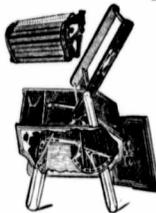


**LEVER
BUTTER
WORKER**
Neatly made, simple, strong, and durable and cheap.
Prices given on application.



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

The WORTMAN & WARD MFG. CO., Ltd.,
London, Ont.
Eastern Branch, 60 McGill St., Montreal, Que.



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

**Purest
and
Best
WINDSOR
SALT**

**ASK FOR IT AND
TAKE NO OTHER.**

Awarded Silver and Bronze Medals,
Paris Exposition, 1900.

The CANADIAN SALT CO.
Limited
Windsor, Ont.

**To Butter
Makers...** We import Genuine Vegetable Parchment for Butter Wrappers direct from Germany, and have it tested at the Ontario Agricultural College. We cheerfully send samples.
SENTINEL-REVIEW CO'Y, LIMITED,
Box 724, Woodstock, Ont.

RIPPLEY'S COOKERS Are now made in Canada, saving duty and freight for our customers. Made of boiler steel. No flues to rust or leak. Will cook 25 bushels roots or grain in two hours. Pans for heating stock water tanks, dairy rooms, pigpens. Can be used outside or attached to a chimney same as a stove. Used and endorsed by the following Canadian breeders and many others: B. our & Saunders, Banford; W. D. Platt, Hamilton; D. C. Platt & Son, Millgrove; H. J. Davis, Woodstock; Ontario Agricultural College, Guelph; also James Boden, Graham Bros., Newton and Gosh, J. A. McDonald, J. P. Connelly. Prices \$10 to \$45. Took first premium at Toronto and London fairs. Catalogue and prices mailed free. Address: **RIPPLEY HARDWARE COMPANY, Box 215, London, Ont. U.S. Factory, Grafton, Ill.**



WILSON'S HIGH-CLASS SCALES

**SPECIAL PRICES THIS
MONTH**
On 2,000 lb.

**Diamond Steel Bearing
SCALES**



Write To-day.

**C. WILSON
& SON**

go Esplanade St. E., TORONTO, ONT.

**STEEL
HARROWS**



Tolton's Section and Flexible all Steel Harrows have an unequalled record. Made in all suitable styles and sizes, for different soils, or in widths to suit purchasers. Pre-eminently the most efficient, strongest, and longest-wearing harrows ever manufactured is our unqualified guarantee. Parties wishing a first-class harrow will do well to write us direct or apply to the local agent.

OUR MOTTO: "Not how Cheap, but how Good."
TOLTON BROS. Guelph, Ont.

BRITISH COLUMBIA FARMS

If you are thinking of going out to the Pacific coast, try British Columbia. A delightful climate, no extremes of temperature, fertile land, ample rainfall, heavy crops, rapid growth, and splendid market for everything you raise at good prices. The celebrated valley of the Lower Fraser River is the garden of the province. Write for farm pamphlet telling you all about it and containing a descriptive list of farms for sale. **The Settlers' Association of B.C.**
Box 540, Vancouver, B.C.

Our market reports are reliable and up-to-date. They are written specially for The Farming World and are of inestimable value to every farmer.

The Farming World

For Farmers and Stockmen

VOL. XX.

APRIL 1st, 1902.

No. 13

Early Seeding

SPRING seems to be opening up with a rush. Farmers in Bruce County were reported last week as having begun seeding operations, one having sown oats. This is very early indeed, and more especially for that part of the province, where the season is usually ten days or two weeks later in opening up than in counties farther south. While it may be desirable to get the seed into the ground as early as possible, it may not always be advisable. In the first place the land should be in good condition, and, following that, there should be good growing weather. An early season will give farmers a splendid opportunity to get their land in good condition for the seed.

◆◆◆
Our Special Dairy Number next week. Look out for it!

Cattle Shippers' Grievances

That transportation is the all-important question in Canada to-day cannot be doubted. At nearly every gathering of producers, whether of farm products or other commodities, this question is constantly coming to the front. The meeting of the Dominion Cattle Dealers' Association, a report of which appears elsewhere in this issue, furnishes another proof of this. The complaints of the dealers this year are not so much in regard to excessive freight charges, but deal with the poor accommodation and careless treatment meted out to live stock, and more particularly cattle, by railways and steamship companies. The cases cited of careless treatment on the branch railway lines of cattle are bad enough, but the unnecessary and costly delays of the ocean steamships with cattle on board are much more serious. It would seem, in the cases mentioned by Mr. Snell, that the steamship companies were culpably negligent, and made no effort whatever to live up to the agreement made with the shipper when they took his cattle on board. There surely must be some remedy for this kind of thing.

If the cattle were properly looked after during the delay, in taking on the extra cargo, the grievance would not be of so serious a character. But they are not. The usual practice is to drive the cattle into the narrow passage-ways on board, and keep them there for the five or six days the vessel may be delayed at the second port in taking on cargo, as at Quebec after leaving Montreal, or at Halifax af-

ter leaving St. John. And there are other and perhaps more serious complaints by shippers that did not come out at the association meeting. We know of one instance where a firm of cattle exporters in this city paid for bran and ground feed for their cattle, while on ship-board, and the vessel left port without this feed, though it was on the dock ready to be taken on board. The cattle, therefore, had nothing to eat on the voyage but dry hay, and landed in England in a very much worse condition than when they left port, as would be expected under such treatment. And what is more, we understand that this feed was taken on board the company's vessel next sailing and sold, the proceeds going to enrich the steamship company's treasury.

These are some of the grievances which the Cattle Dealers' Association will ask the Government to look into. That they are of sufficient importance to claim the attention of those in authority no one will deny. There are certainly good grounds for an investigation, and if the inspector, the cattle shippers are asking for, is appointed, he will have plenty of opportunity to earn his salary.

While it has been the cattle shipper who has suffered directly in the cases mentioned, it all comes back upon the producer or farmer. The losses through negligence or poor accommodation and the excessive freight charges the dealer or shipper has to pay in getting his cattle to the consumer, are all charged up in some form or other to the fellow who produced the cattle. Were it not for these losses and the extra freight charges the dealer would be able to pay the producer more for his cattle than he does at the present time. This phase of the transportation problem is, therefore of as much importance to the farmer as any we have discussed during the present winter. Cheaper and better transportation is the question of the day in Canada and the one that must be solved before the producers of this country are in a position to compete successfully with the producer in the United States and in other lands.

◆◆◆
Parties desiring to have copies of Dairy Number sent to friends should send in their names at once.

Cream Gathering Creameries

In our correspondence column this week, appears a letter from Mr. I. W. Steinhoff, in which he takes pretty strong ground regard-

ing the extension of the cream gathering system of making butter in Ontario. We have no means of knowing definitely how far Mr. Steinhoff's remarks, regarding the bad flavor of the butter made on the cream gathering plan may be according to fact. Mr. Steinhoff has, however, been handling dairy products for a number of years, and he is not the one to make a sweeping statement of the kind contained in his letter, unless he had some good reason for doing so. We, therefore, willingly give space to his communication and would be glad to hear from others directly interested regarding the relative positions of the separator and cream gathering creameries in producing good butter.

In the meantime, it might not be amiss to deal with the question briefly in a somewhat general way. There is a phase of the cream gathering system of butter making that is destined to assume far greater importance in this country, than it has in the past, and that is the farm separator plan. In the Western States and in our own Canadian West this is the popular plan to-day. And if we mistake not, it is developing very rapidly in Ontario. In our opinion, and we have followed its development more or less closely, not only in Canada, but in the United States, the farm separator system is the coming one for operating creameries. Indeed, as we have already stated, it is being largely adopted in the Western States, and is the only one considered on our western prairies. By this plan the farmer has his skim-milk at home in a perfectly sweet condition for feeding, and the cost of hauling to the factory is considerably less than where the whole milk is carried.

Such being the case it would seem to us to be almost futile to attempt to prevent the growth of this system even in this province. A much better course to pursue would be to endeavor to direct the movement so that it can be carried on in the very best way. For years there has been a strong agitation against returning the whey from cheese factories in the milk cans, nearly every dairy authority being opposed to the practice as one tending to injure very materially the flavor of the cheese. And yet there is as large, if not a larger percentage, of factories returning the whey in the milk cans than there was ten years ago. The most reasonable and practical course to adopt, where the patrons must have their whey home, is, not to urge them to quit the practice, but to endeavor to

educate them in the very best methods of keeping this whey as sweet as possible. The farm separator feature of the cream gathering system of butter-making should be treated somewhat similarly. It has in it, besides the commendable features we have named, many others, and is a system which if properly managed lends itself to the production of first-class butter on a more economical basis for the farmer than the regular cream separator creamery. We may be wrong, but, nevertheless, our view is that the best course to pursue is not to en-

deavor to shut off the growth of this system but to try and educate the patron to manage his separator properly and to handle the cream so as to make the finest quality of butter. If this is done we believe that under the farm separator system as good butter can be made as by the separator creamery.

In our special dairy number, which will appear next week, Mr. J. A. Ruddick, Chief of the Dairy Division, Ottawa, contributes a valuable article dealing with the farm separator system which should be read by every one interested in this important question.

John Caldwell, Nurseryman, Vir- den, Manitoba; and E. Stewart, Dominion Supt., of Forestry, on the lines of work of the Forestry Department. Mr. Stewart's paper on "Utility of forests in relation to water supply" was pronounced a masterly effort by those present. He showed the importance of forests in preventing drouths by attracting rainfall, in preventing freshets by acting as reservoirs for the rainfall and melting snow, and otherwise in their tendency to temper extremes of temperature and moisture. A paper on birds in relation to forestry by A. E. Atkinson, completed the programme.

Those farmers who still have grain on the farm for sale or stored in elevators along the lines of railway are rejoicing over the prospect of early opening of navigation. There is every indication that the lakes will be open at least a month earlier than the usual date. Sanguine prophets are abundant who believe that April 1st will see the Fort William and Port Arthur elevators at least partially emptied of the grain that has been lying there all winter.

The Canadian Northern announce further additions to their storage capacity at Port Arthur, as they intend during the coming season to place their line in a position to handle its full share of the grain trade of the West. As was fully expected the amalgamated Beatty and Collingwood lines of steamers will run in conjunction with the Canadian Northern. In consequence of this arrangement much freight that heretofore has been handled in Duluth will henceforth go via Port Arthur and the C.N.R.

Manitoba Farmers' Institutes seem foreordained to misfortune. The series of meetings arranged for the two weeks commencing on the 10th inst. was sadly interrupted by the storm of the 14th, 15th and 16th, which knocked railway timetables into the proverbial "cocked hat" and made travelling an impossibility for three or four days. As a result all meetings of the past week were cancelled, and an attempt will be made to send lecturers to the disappointed institutes during the month of June. Meetings so far as held are reported to have been well attended and great interest manifested in the proceedings. The winter is, generally speaking, the time for successful Institute work in Manitoba and but for the unforeseen, and unavoidable occurrence of that untimely snow storm the winter's work of the Institute would have had a fitting termination in this series of meetings. The lecturers, all local men, speak in enthusiastic terms of the meetings held by them, and general regret is felt at their unfortunate interruption.

An extra large edition of our Special Dairy Number will be issued, and it will be nearly three times the size of our regular issue. No Dairyman can afford to miss this number. Send in your name at once.

Our Western Letter

The Storm. Early Seeding. Forestry Convention. Wheat Shipments. Institute Meetings Cut Short.

Winnipeg, March 24th, 1902.

Public attention was for a few days diverted from the prohibition question by the remarkable storm of wind and snow which swept over the Province and most of the Territories last week. At least one and one-half feet of snow fell during the 14th, 15th and 16th of the month, which, with the wind blowing a gale from the north-east, was for the most part deposited in miniature mountains in each sheltered spot, while the open fields and roads were left bare. It was reminiscent of those great and curiously wrought banks of white that were the wonder and admiration of the writer, when a schoolboy in East Middlesex, as they reared their snowy heights along the sinuosities of the old zig-zag rail fences, then so common in that part of the country. The recent storm bore further resemblance to the Ontario nor'easter, in that it has been succeeded by thaw and rain, which have already removed the greater part of the heavy snowfall. The warm rain which fell yesterday will greatly advance the season, and there seems to be every probability of an early spring.

Another week of weather like the past week will enable the farmer to get at the spring plowing. Owing to the unusual proportion of "stook threshing" last fall, the fall plowing fell considerably below the previous year and, unless the spring should be early and prolonged, the crop area will show the effect of this failure to get the desired amount prepared for crop during the fall. There are other indications pointing to a slight decrease, especially in wheat, as compared with 1901, among these may be mentioned the fact that last year's increase over 1900 was abnormal and due largely to the partial failure of the wheat crop of 1900. The foregoing remarks apply solely to the province of Manitoba. The crop area of the Territories will, owing to the heavy immigration of the past two years, in all probability show an increase. I am unaware of any statistics as to the amount of land broken last

year, upon which to a large extent the increase will depend, but am led to believe the amount is considerable. The increase from that source in Manitoba has been taken into consideration in this forecast.

A stationary or even a declining area in wheat could not be considered otherwise than a gain to the community, if thereby the energies of our farmers were diverted into other branches of agriculture. A consideration of the comparative value of our grain crops and other products of the farm, cheese, butter and beef, shows that the fertility of our soil is being sold by the bushel as fast as it can be got into marketable shape. The farmers of older lands can tell us what must be the inevitable result of that system of farming, doubtless here as elsewhere no heed will be given to any warning except that of the decreasing yields, which are bound, sooner or later to result from this unwise policy of overdraining our account at nature's bank.

The annual convention of the Forestry Association was held on Thursday, the 20th inst. This association is organized chiefly for the purpose of keeping before the public the importance of the afforestation movement in the West, and of maintaining the present forest reserves undiminished. The present reserves amount in the aggregate to about a million and a half acres. The work of the Forestry Commissioner, Mr. Stewart, and his lieutenants, Messrs. A. P. Stevenson and Norman Ross, have been several times referred to in your columns. Much has been accomplished in the past and much remains to be done. The interest shown in the movement by the farmers of the Province and the Territories indicates that the efforts made on their behalf by this department of the government are fully appreciated. In the coming season some 500,000 trees will be planted under the supervision of the Forestry Department, by the farmers of Manitoba, and a further large number by the farmers of the Territories. After the election of officers papers were read by A. P. Stevenson, Inspector for Manitoba;



Ingleside Farm House, on banks of St. Clair river, residence of C. Wills, Mooretown, Ontario.

Gardening for Pleasure and Profit

A Prizewinner's Experience

Gardening is too often looked on by Canadian farmers as a bother and nuisance, and if the farmer has a good garden it is the women folks who deserve most of the credit. If the farmer could be made to believe that that portion of the farm pays better for its size than land in any other crop, besides the pleasure and interest derived from the care of it, the garden would not be so neglected as it is at present by many farmers who often do without things that they could easily raise on account of the idea that it doesn't pay to bother with them. As I have had good success the past four summers with my garden of half an acre, raising from \$125 to \$150 worth annually, at an expense for time, seed and fertilizers of \$20 to \$30, and growing the first and special first prize collection, and many other prize exhibits at the late Provincial Exhibition, I may be able to give those interested an account of my experience the past season, trusting they will be benefited by it. The half acre plot intended for my garden was ploughed up in the fall of 1900, and cross-ploughed in 1901. It was then dug by hand with a digging fork, and all the clods well pulverized and well rotted manure thoroughly mixed with the soil. The garden rows were marked out a foot apart for small root vegetables and correspondingly wider for the larger growing crops, which require more room to develop properly. A small quantity of fertilizer, or wood ashes, was drilled in with the seed. As soon as the plants were well above ground, I went over the ground between the rows with a sharp garden rake, breaking the crust, thus destroying the weeds before they became troublesome and conserving the moisture of the soil, keeping it from evaporating too freely. I find an hour's work at this time of

growth to be worth a day's work later on, when the weeds become large enough to pull. Frequent cultivation through the season and watering in dry weather appear to keep the crop growing better than heavy fertilizing, and the crop is of better quality. By the use of hot beds and cold frames I set out early lettuce in the soil intended for late tomatoes and celery, thus getting two crops from the same piece of ground at little expense. Wherever there is a bare space in the garden I find it a good plan to set it with plants as near like the remainder of the crop in appearance as possible. Beets and celery are easily transplanted into such spaces and cabbage can be set around the fences and where potatoes have missed, which, besides filling up the space, often do better than if the soil was especially intended for them. Cucumbers and squash do splendidly alongside ditches and paths, especially when planted in rows, which after a thorough trial, I find to be the best method of growing such vegetables for the following reasons: They can be easily weeded and

gathered without disturbing the vines, they take up less room than in hills. Cucumbers are also much earlier, which is a great advantage by the sun gaining free access to the vines. Of course, the plants should not be very close—eight inches for cucumbers and two feet for squash are sufficient. If the ground is quite heavy and contains much organic matter, I find that tomatoes ripen several weeks earlier than on stable manure, if a quantity of lime or wood ashes are used instead. The yield will not be so large, but the earliness, smoothness and quality are much increased, and they bring the best prices in the market. They need a certain amount of barn manure on light, poor soil, but it appears to be a waste of time to apply it to a heavy, rich soil, as the plant will run all to vine, and a poor crop will be the result. Space will not permit me to describe all my methods, some of them original, but which have resulted successfully in nearly every case. I will now, for the benefit of those to whom the multiplicity of varieties mentioned in the seed catalogues are confusing, give a list of the best varieties I have tested out of over 200 varieties, and have found by side-by-side comparisons, to be the earliest and best, incidentally mentioning some of the advantages gained, I believe, from three years' experience at exhibiting that success in that line as well as for other purposes, depends more upon good seed of suitable varieties planted, more than on any other factor. The longer the season of certain vegetables are extended by the planting of early medium and late varieties, the more valuable will the garden be as a means of pleasure and profit. The following kinds afford a succession from early in the summer till late in the fall, and with proper attention will not always be a failure. Lettuce, which is started in a hot bed or cold frame, is the earliest product of the garden. Denver Market is a fine early sort, while New York or Wonderful is the best late. Radishes come next, the Rosy Gem for early and Long Scarlet for late are good varieties. Early peas are not heavy yielders, as a rule, but the Notts Excelsior



Township Ferry, Sombra Township, Ont.

followed by the Telephone for late fills the bill satisfactorily. In string beans Wardwell's Kidney Wax proves to be the earliest bush bean, and Golden Cluster the earliest pole bean. If shell beans are desired, the Mammoth Horticultural and White Runner produce immense beans of good quality. The earliest and smoothest beet of five kinds is the Crosbys Egyptian, but for winter, I prefer the old-fashioned Long Blood, both for its heavy yield and keeping qualities, though it does not sell as well as the round sorts. The Oxheart carrot, followed by the Danvers and Long Orange, will make a good succession, and in cabbage, Jersey Wakefield is still the earliest, Allhead Early and Danish Ballhead the best medium and late, the last named being a very solid, heavy cabbage for its size, and has proved with me to be a wonderful keeper. The earliest cucumbers were the short pickling kinds, and they also yielded heavily, but the White Spine and Long Green are the best table and selling kinds. Only the earliest varieties of corn will mature in this locality; the Compton's Early and Longfellow do well, also the Cory and Minnesota Sugar. The plan of starting onion seed under glass and setting out the plants has been a great success with me; by this method I raised the largest onions ever grown in this locality. Red Wethersfield was the best red sort, White Globe the best white, and Prizetaker the best yellow. In parsnips I find the Hollow Crown to be as good as any, and turnips of the P. T. Swede and Milan varieties do well, except that the disease called clubroot is quite troublesome. The earliest of eight kinds of tomatoes grown side by side was the Earliest of All, but was not as good a yielder as some that followed. Out of over twenty sorts of squash and pumpkin, many proved to be worthless except for ornament or exhibition, but the person who depends on Orange Marrow Delicata and Turban squashes, and Sugar and Winter Luxury pumpkin for earliness and Hubbard Bay State and Marblehead squash for winter will not be disappointed. If a few mammoth sorts are wanted for exhibition or feeding, the Mammoth Green and Chili squash and Mammoth Tours or Boulogne pumpkin are the best and easiest to grow. The foregoing statements are but the results of hard work and close attention to details. I had very little time outside of my regular work, to attend to the garden as I would have liked, but the fact of selling \$50 worth, using \$50 worth in the family and winning \$30 in prizes from the products of half an acre, shows that to those who persevere even in an unfavorable locality, as I am situated in, will be successful in their undertaking, and the experience and pleasure gained will repay for all the disappointments and failures which a garden properly cared for is seldom incapable of.

Halifax, N. S. E. MacKinlay.

More About Good Roads

Gleanings From the Ottawa Convention

COMMUTED STATUTE LABOR

Mr. T. W. Allan, Reeve of North Grimsby, gave the experience of that township with the Commuted Statute Labor system. One advantage of this system is that it reduces the work of the township clerk by from 15 to 20 per cent. It does not impose any hardship on the poorest tax payer because a man who has not the money can go on the road and earn the amount necessary in less time than it would have taken him to work out his statute labor under the old system. To carry out the plan, the township is divided into two districts, each of which is under the management of a commissioner. These officers receive \$1.50 per day each while employed, and earn perhaps \$100 per year. Two great advantages connected with the new system are, that the work is done just when it will prove of most value, and labor-saving machinery can be made use of. Under the old plan of operations they had a road grader, but the pathmasters never seemed able to make proper use of it. By using it they are able to grade our clay roads at a cost of \$20 to \$30 per mile. And a road once made will hold in fairly good shape for five years. Besides the grading, we keep going over our roads with a planer. This machine is put over the roads just as soon as they are dry in spring, and after a heavy rainfall in summer we put it at work again. The cost of planing of all the clay roads of the township is \$40 each application.

ROAD-MAKING MACHINERY.

Major Sheppard addressed the meeting on good roads machinery. He stated that grading and drainage are at the foundation of good roads. Good roads cannot be had without machinery. In buying machinery for this purpose it is a most unwise thing to attempt to save by cutting off some of the attachments usually sold with a crusher. You may save a few dollars on the first cost of the machine, but you will lose a large sum annually in the expense of operation. An illustration of this was afforded in Nova Scotia, where two machines were operating within three-quarters of a mile of each other, under precisely the same conditions. The one handled the material at half the cost at which it was handled by the other machine. A good crusher, capable of running twelve to twenty cords of stone per day, will cost \$1,200. It is not wise to have more than 9 to 16 inch capacity in the jaw. A good crusher will weigh four and a half to six tons.

Speaking of rollers, he stated that he had asked his people to have a roller built which would weigh not over ten tons, that would carry water enough to last half a day, and that should not

cost over \$2,000. He found, however, it was impossible to get a roller such as this made for the price stated. A five-ton roller, he added, worked by horse-power, would do fair work, but in his opinion it was better to have a traction engine and a heavier roller. One of the lighter rollers could be bought at \$100 per ton. "It will pay to have a wagon built for the special purpose of spreading the crushed stone on the road, and it is necessary to sprinkle the last layer of stone in order to get a proper set of the material.

FURTHER ORGANIZATION.

The work of further organizing the good roads work of the Province was discussed. The Eastern Association does not pretend to cover the territory west of Kingston. It was felt, however, that there was room for two organizations similar to the two dairy associations. As the original Good Roads Association, which was responsible for the first agitation in this province for good roads, and which resulted in the appointment of a good roads commissioner, has ceased to exist, the plan of having an Eastern and Western Association seemed to meet with favor.

An effort was made to interest the Dominion Department of Agriculture officially in the good roads movement, but with little success, and we think rightly so. The maintenance of the roadways of the country is purely a provincial matter, and should be left to the provinces to deal with as they see fit. Conditions are so varied in the different provinces that it would be difficult for a Dominion organization or a Dominion official to do effective work in extending the good roads movement. When the provinces have exhausted all their resources in this direction it will be time for the Dominion to step in.

Plant Food

We hear at times of plant food used in excess—rather, of one or more of the three elements of plant food used in excess. This must prove confusing to some of your readers, and we shall attempt here to make the same a little clearer. In the first place, all fertilizers, manures, and other materials applied to soils to increase plant growth have been found, when of value, to have certain points of sameness—they all contained nitrogen, potash and phosphoric acid. Further investigation proved that these three substances are true plant food and not the great bulk of the material associated with same. For example, a ton of sulphate of potash contains 1,000 pounds of actual potash and 1,000 pounds of sulphur combinations, etc., it is only the 1,000 pounds of actual potash that is useful as plant food, the other 1,000 pounds

Correspondence

Cream Gathering Creameries Condemned.

EDITOR THE FARMING WORLD

having no value as such. The actual potash may be separated from this useless material (useless so far as the farmer is concerned) but to do so would greatly add to the cost of the actual potash. As a matter of fact, plants are as able to use the potash in the crude material as if in the refined condition, so that the cost of refining is a needless expense. In like manner, a ton of farmyard manure contains about ten pounds of nitrogen, 10 pounds of potash and 5 pounds of phosphoric acid. This in all makes 25 pounds of plant food, and the remaining 1,975 pounds of the ton are not plant food at all, and really add very much to the cost of the actual plant food by the mere expense of handling.

We have now made clear the nature of plant food; it consists of three substances, nitrogen, potash and phosphoric acid. We must now consider another point. These substances may not be used out of place, that is, nitrogen cannot do the work of potash, nor potash the work of nitrogen. Phosphoric acid in like manner, alone can do the work of phosphoric acid. This fact is a very significant one. If, to illustrate, a soil contained nitrogen and phosphoric acid sufficient for 30 bushels of wheat per acre, but potash only enough for 5 bushels, the crop would not exceed 5 bushels. This is the very point making clear the meaning of "plant food in excess." In the illustration given, we evidently have five times as much nitrogen and phosphoric acid as we can use, there being no potash to go with it. This useless nitrogen and phosphoric acid is therefore in excess. It is of no value in crop making, and suffers loss through the seepage of winter, when there is little or no surface evaporation to draw minerals to the surface.

Using particular plant food elements in excess means more than the simple loss of these ingredients. Nitrogen in excess tends to favor a growth of immature wood, leaf and stalk; fruiting is shortened and blossoms prove sterile. Winter killing becomes very severe. An excess of phosphoric acid has the effect of stimulating maturity to an unusual degree, causing a ripening of the crops long before a full growth has been reached. Potash in excess does no particular damage, and also persistently resists losses from leaching. We must, therefore, consider the probabilities of an excess of plant food in every manuring scheme we attempt to work out. Farmyard manure does not of itself contain an excess of any element of plant food; but, the nitrogen in such manure becomes available long before the potash and phosphoric acid, which in effect is the same thing as an excess of nitrogen. This is noticed in the common lodging of grain where farmyard manures are used in large quantities, particularly in spring top-dressing wheat.

P. J. Christian.

Will you kindly permit me through the columns of your influential paper to sound a warning, or enter my protest against the extension of a system of butter making, which I believe will endanger, if not destroy the reputation of Western Ontario for the production of the finest quality of dairy goods.

I have sometimes made the statement when addressing dairy meetings, that the dairy cow and the bacon hog were doing more to glorify and advertise Ontario today than any other two products. I do not think that this is an extravagant statement, and I verily believe that this reputation is worth a good deal to us, and that dairymen should very carefully guard this reputation and make their best effort to protect it. But the tendency at the present time seems to be toward making more butter upon the cream gathered system, which in my judgment, is the opposite direction.

This tendency to go out of cheese making and turn to butter is more particularly noticeable in the Northern district, where there are from twenty to twenty-five factories, which a few years ago were making good quantities of cheese, which are now either lying idle or are engaged in making butter on the cream gathered system, and now I understand that the celebrated Bluevale factory, which during the past years has certainly done much to bring repute to the name of Canadian cheese, is also going into the cream gathering business.

I have had considerable experience in handling butter from both the separator and cream gathered methods, as the factorymen well know, both for Montreal firms for export and for Canadian markets, and I have no hesitation in saying that the separator butter is much superior in quality, and, in fact, the only class of Canadian creamery butter that is sought after by Montreal and all other leading exporters and dealers for even finest Canadian trade. In handling creamery butter I have, during the past summer more frequently than ever before, been met with the statement, that "your Western butter is bad in flavor; we do not care to handle it." This applies to summer butter made on the cream gathered system, and it has become a recognized fact that during summer the best butter is made in the East, and during winter, where the cheese factories are turning out butter on the separator system, the best butter is found in the West.

On the other hand, it is a fact that Canadian butter is in much better repute in English markets now than a few years ago, but it will be

admitted by those who know the facts that this reputation has been redeemed by the introduction of separators, adoption of the method of weekly shipments when the butter is in good condition, and the better transportation facilities; but still the quality of the average cream gathered is not wanted.

These, Mr. Editor, are bold statements and may seem to jeopardize the interest of some of the creamerymen with whom I do business, for which I am sorry; but it is only the extension of the system at which I want to strike, and I make these statements in what I understand to be the best interests of dairying, and believing the facts will stand the most thorough investigation among those who are handling the butter believing they are the best authority upon what kind of satisfaction it gives.

In this particular, the Montreal exporters or English receivers have the advantage, as they see the butter from different sections of the country, and made under the different systems, side by side.

Before concluding this letter, I must admit that there are certain results such as the giving of prizes, etc., in Canada, which would seem to refute this contention; one instance of which I happened to be connected with myself, and in case this might be quoted, if this letter provokes discussion (which I hope it may), I shall here refer to it.

At the Pan-American Exhibition in Buffalo, where I acted as Canadian judge in the October competition, with Mr. A. H. Barber, of Chicago, and Mr. White, of Boston, the butter exhibited by Mr. J. McQuaker, of Owen Sound, scored 97½ points, and that of Mr. Brill, of Teeswater, scored 97½, both being cream gathering creameries, while the highest score recorded on any butter of the 330 samples was only 98.

This may have been due to the cream being very carefully selected, possibly from separator cream, the weather at that time being cool and the butter fresh made, and sent under favorable conditions.

This being true, however, I reiterate my statement that we find the cream gathered butter, as a rule, when 10 to 20 days old, of a sort of stale, sour, heavy flavor, and it is getting all the time harder to handle it, while shippers cannot get enough of the clean, nutty flavored separator butter.

My principal point, is that instructors, and those who are advocating the making of more butter, should also advocate the establishment of separator creameries only.

Should you, or anyone else, wish to make enquiry into this subject, I will be pleased to furnish a list of exporters' names, to whom you may refer for information.

I. W. Steinhoff.
Stratford, March 20th, 1902.

Hatching and Raising Early Chickens

By Mrs. Joseph Yuill, "Meadowside," Carleton Place, Ont.

Having been very successful in raising poultry last year, and especially so in hatching and raising early chickens, I thought I would give you an article on "How I did it, for the benefit of such of your readers as it may interest.

Our hen house is 20 feet long by 8½ wide, with double brick walls plastered on inside, and cement floors. The windows which are three feet by five, are two feet from the floor, two of them facing south and one east. The ceiling is two ply inch lumber. The roosts are round poles supported from the ceiling, and are one foot from the floor in front and two at the back. The droppings are scraped up each morning, and the floor sprinkled with wood-ashes. The dust bath is composed of one lb. sulphur to every eight pails of road-dust. I feed in a V-shaped trough. The drinking fountain is a four gallon, covered tin can, with a strip 6 by 3 cut out of the side, about six inches from the bottom. Our fowls are all Barred Plymouth Rocks.

The best results we had in hatching, were from eggs laid by pullets eight months old, fed on a little grain morning and noon, and in the evening a mash made as follows: 2 handfuls of fine ground or broken egg shells, 2½ lbs. cut clover, scald with about 1 quart of water, let steam for half an hour, then mix with bran and a little salt.

Their supply of meat is prepared at butchering time, all the refuse meat is boiled until quite tender, then mix with one part bran, two parts oats, one part barley ground fine and a little salt. Fill this mixture into small barrels or nail pails then put it out to freeze, when frozen solid, break two or three staves out of a barrel and roll it into the hen-house, as it thaws, the hens will get all the meat they require. We also feed a little ground bone every day.

Seeing a number of articles in the papers on "Feeding poultry for egg production in winter," I tried a change of feed, but did not have so good results. I filled my first incubator on the fourteenth of January, and had eighty-six live chicks out of one hundred and ten eggs, these chickens were left in the incubator for twelve hours.

In preparing the brooder, I put about one inch of sand on the bottom, heat it to 70 deg., then put the chickens in and let them remain twelve hours without food. For the first feed, mix a hard boiled egg ground fine, shell and all, with one quarter of a lb. stale bread crumbs, put a clean paper over part of the sand in the brooder, then sprinkle two tablespoonsfuls of this food on the paper, repeat in two hours, when the paper becomes soiled, replace with a fresh one. Continue this food for the first three days, being careful not to feed

too much. On the fourth day, about a teaspoonful of ground meat may be fed, also a little pin-headed oatmeal mixed with small seeds, such as millet, still continuing the hard boiled egg and bread, although a little oatmeal may be mixed with these. When about two weeks old split a small mangel, scrape a little out of the middle, mix with corn-meal, replace and feed. The mangel serves as a trough and teaches them to eat it. Give them a fresh one every day. By this time the chickens are able to leave the brooder for food. Scatter a little wheat and seeds on the hen-house floor. Boiled potatoes mixed with fine ground oats, and corn-meal slightly dampened with skim-milk may now be fed for breakfast. About ten o'clock give them ground cabbage, carrots, mangels or onions, mix with fine ground oats, corn-meal or shorts. If possible change this portion of their diet every day. When they were about 3 months old I fed them wheat for supper, at four months, whole oats. While in the brooder give all the clean, cold water they will drink, in saucers with a teacup turned bottom up in each one. Do not give them any milk for the first two weeks.

We raised all our February and March chickens in this way. I disposed of very few of the Feb. chickens as the majority of them were pullets. What cockerels there were among them, and also those hatched in March, were sold to the Canada Produce Co., Toronto. The February chickens weighed on an average, four pounds each at four months old and the March chickens weighed three pounds at three months old. The February pullets commenced laying in August, moulted in the last of September, commenced laying again soon after and have been laying ever since.

I have used a Cyplers incubator for the past two years and am having good success with it this year.

The Shut-In Society—Miss R. was telling her Sunday school class of small boys about the Shut-In Society, whose members are persons confined with illness to their beds or rooms. "Whom can we think of," said she, "that would have great sympathy for these that are so shut in?" "I know," said a little boy; "someone in the Bible, ain't it, teacher?" "Yes; and who, Johnnie?" "Jonah," was the spirited answer.

The Weaker Sex Stands Together—"Which do you love most, your papa or your mamma?" Little Charlie: "I love papa most." Charlie's mother: "Why, Charlie, I thought you loved me most." Charlie: "Can't help it, mamma. We men have to hold together."

Poultry and Eggs.

Advertisements under this head one cent a word. Cash must accompany all orders under \$2.00. No display type or cuts allowed. Each initial and number counts as one word.

BROWN Leghorns, Prolific early layers; Strain won at Pan-American. Stock for sale—Minorcas, Barred Rocks, Chincotee Strains, Eggs in season. JOHN B. PETTIT, Fruitland, Ont.

REID'S Great Prize Winners. They have won 5000 prizes in my own hands. Send for list of varieties. W. W. REID, Ayr, Ont.

BARRED ROCKS. Stock and Eggs for sale from prizewinners at leading shows. Eggs by the hundred or setting. Prices right. Write stating your wants. ELIAS SNYDER, Burgessville.

DIAMOND Poultry Yards, Freeman, Ontario. Rose Comb Black Minorcas, exclusively winners firsts and 8 seconds Toronto and Hamilton Winter Shows; Eggs \$2.00 per 13. F. WOODCOTT, Freeman, Ont.

EGGS for setting. Silver grey Dorkings from splendid stock. John Taylor, Jr., Galt, Ont.

PINE HILL STOCK FARM can supply eggs from the following varieties, choice of stock: B. Langshans, L. Brahmas, Barred and W. Rocks, G. S. L., and White Wyandottes, S. G. Dorkings, W. and Brown Leghorns, Buff Cochins and Golden Seabright Bantams, \$1.00 per 13 eggs; Pekin Duck eggs, \$1.00 per 11; M. Bronze Turkey eggs, \$2.00 per 9; Toulouse Geese eggs, 40c. each. D. A. GRAHAM & SON, Theford, Ont.

EGGS Three Dollars Hundred—Pitts Minorcas, E. B. Thompson; Bradley Bros. Liffell Strain; 15 eggs 75c. All birds scoring 92 to 96 points. N. H. SMITH, Tilbury, Ont. Lock Box A.

FOR SALE—Eggs from choice matings of Barred Plymouth Rocks and Mammott Pekin Ducks—\$1.00 per setting. F. C. TRAVERTON & SON, Belleville, Ont.

FOR IMMEDIATE SALE. Ten pair English Ring Neck Pheasants and a number of Barred Rock Cockerels. R. M. LEE, Box 323, Galt.

EGGS FOR HATCHING. Single Comb White Leghorns and Barred Plymouth Rocks, \$1.00 per 13. HARRY D. NORTON, Alliston, Ont.

WHITE ROCKS, good laying strain, eggs one dollar. Cockerels, one dollar. Supply limited. Order early. HIGHWORTH POULTRY YARDS, West London, Ont.

EGGS FOR HATCHING. Black Minorcas B. P. Rocks, 15 eggs only 75 cents. Every egg from these pens score 92 to 96 points and prize winners. W. H. SMITH, Tilbury, Ont. Lock Box A.

SEND your name for Circular of Standard-bred Plymouth Rocks and Wyandottes. The breeds for utility and export. Eggs reasonable. PYRAMID POULTRY YARDS, Newmarket, Ont.

Poultry Pays.

The Farming World, Toronto.
Dear Sir:—

Enclosed you will find \$1.00 for our subscription to The Farming World for 1902. We have had, as usual, the best of success with our ad. in The Farming World. The past season we shipped turkeys as far West as Manitoba and Illinois, and as far East as New Brunswick.

The Farming World is responsible for this, as it is the only paper we advertise turkeys in. Prices were higher the past season than any previous year. Through our winnings at the last Toronto Industrial Exhibition and the record turkeys of our breeding made at the Pan-American we made several good sales at long prices.

Wishing your paper a prosperous year.

We are yours truly,
Jas. Ford & Sons,
Drumquin, Ont.

The Sugar Beet World

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

Edited by JAMES FOWLER

Sugar Beetlets.

Agronomists are attaching more and more importance to the question of the careful harvesting of beets. It is now admitted by most authorities that the slightest bruise always means an important sugar loss, and the changes in silos are most difficult to keep under control, as during their keeping these bruises come directly in contact with the micro organisms of which the ground is always supercharged.

It is always a great mistake to place beets in silos during rainy weather. Their subsequent keeping is much more difficult because the moisture absorbed helps second growth and decay.

The grafting mode of obtaining superior beets has made important strides and may lead in a practical way to results that would not hitherto have been thought possible. If superior seed can thus be obtained it means at once an important increase in the quantity of sugar that it is possible to obtain per acre.

The use of molasses in the several fodder combinations for cattle have proved profitable, and its distilling with the view to the manufacture of alcohol has become a considerable source of income, for the product brings a satisfactory price upon the market.

The question of pressing or not pressing has been very exhaustively examined by several German authorities.

Notwithstanding the fact that most of the American farmers attach but a secondary importance to the feeding value of residuum beet cosettes from diffusion, in many agricultural centres of Europe the tiller resorts to sugar-beet cultivation with the sole idea of obtaining from the sugar factory the residuum in question, and the profits derived from fattening heeves, combined with the resulting manure, places the sugar beet at the head of the money-making crops. The cosettes may be fed fresh, siloed or dried. The residuum fresh from the pulp presses has a composition that depends upon the variety of beet from which they were obtained, the soil and fertilizer used has also an important influence upon the composition of the exhausted product. In some factories farmers are compelled to handle the residuum as emptied from the diffusion battery without submitting it to a preliminary pressing. Under these circumstances the bulk is considerable, and it offers considerable difficulty for transportation to distant farms.

A New Machine.

A gentleman living near Hamilton, Michigan, is said to have tried, during the past season, a new puller and topper that gave excellent satisfaction. This machine is said to put the beets in rows ready for the wagon.

This topper is composed of two revolving heads, each consisting of six discs, so arranged as to give a square cut and force feed, thus avoiding the canting or slipping of the beet. It will top a beet, throw out a chunk that would clog other machines and top another beet in a space of eight inches. Automatic in its action, it is positive in its work, regardless of the hand of the driver if he simply drives so as the beets enter the machine.

The digger, too, is a new construction, and while it runs but five inches in the soil, will pull or lift beets of any length.

Substantial Progress in Canada.

The Beet Sugar Gazette, of Chicago, has taken occasion repeatedly to warn intending investors in beet sugar enterprises to begin their work on a substantial basis and never lose sight of the fact that the agricultural part is the foundation of the beet sugar industry, and says this about us:

It is gratifying to note how well this principle seems to be understood in Canada. The agitation for beet sugar has been going on there for several years, and at least four factories are certain to be built this season. In each case the Beet Sugar Gazette is assured that ample tests were made before the work of canvassing began, and that a sufficient acreage has been secured to give the factory a good run from the very first. In most cases 5,000 acres have been contracted for three years. The farmers who have undertaken to grow the beets are, for the most part, well-to-do, having been successful in farming, and they are taking the work up intelligently and in accordance with approved principles. Few contracts by individuals call for more than five acres, and contracts for three acres are not rare. There is no danger, therefore, of lack of help to attend properly to the field work. All that is needed for a good crop is a season of suitable weather.

Moreover, the contracts for the erection of the factories have been let in sufficient time to enable the construction companies to do their work well and thoroughly and have the plants ready for operation when the beets are ripe.

Altogether, the prospects are that the Canadian factories will not have to go through the dis-

travelling experiences that some American enterprises did which were planned less conservatively, but will be able to show a profit the very first campaign. For the future development of the beet sugar industry in Canada no better auspices could be desired than those under which the first factories are about to be launched, and if the same conservative course is pursued by those who may come after as was done by the pioneers, the industry will achieve splendid results in Canada.

Sugar Beet Pulp for Cows.

We are just feeding our first pulp to cows. The car came to hand during the late cold snap and some of the pulp was frozen quite badly but it is gradually thawing out now and we will be able to feed it all without loss. The cows did not eat it readily at first, but in a very short time they ate it greedily and seemed to enjoy it as much as ensilage. This was just as I expected. Almost any new feed is not eaten as readily at first by cows, but after a little time they eat it well. I expected the cows would fall off a little in the flow of milk when we changed to this new feed, especially as the weather was colder than usual, but there has been no falling off and one herd has actually gained. This herd has had no silage so far this fall but has been eating beet tops twice each day, and now on the pulp these cows have made a gain. The other two herds have been having silage once a day and beet tops once a day. Now we are feeding pulp in place of the beet tops once each day and giving them one feed of ensilage the same as before. There has been no particular change in flow of milk thus far but we have been feeding the pulp as yet only a few days. It certainly has had no bad effect on the cows in any way.

Of course I shall be able to determine the value of beet pulp for cows only in a comparative way. A feed of beet pulp or beet tops, for that matter, seems to be the equivalent of a feed of corn ensilage. That is, the other part of the ration remains the same in both instances, yet there is no loss in flow of milk by substituting a feed of ensilage for one of beet tops or beet pulp. Now it costs me 70c per ton freight on the pulp and then we have to haul it 4½ miles from the station. Will it pay? That is the question. This car of pulp cost me over \$16 freight, besides the hauling. Is it worth the cost? One thing sure, I am saving a lot of corn silage, but of course that doesn't settle the question, for it is hard to tell what the corn silage is worth. This product is us-

ually estimated at its cost. But it is certainly worth more for food than it costs to grow the corn and put it into the silo. Some say it is worth \$2.50 per ton as a food. If it is, and a ton of beet pulp will take the place of a ton of silage, then the beet pulp is worth all it will cost me, and more too. There is another way to look at this. If the beet pulp was not fed, then some other food must take its place. In case one was short of silage it must necessarily be some coarse dry food, say hay. Now, how much hay will it take the place of in feeding a ration? This car of pulp will last my three herds of cows nearly or quite two weeks, feeding as we do. Now, \$16 worth of hay would not last very long for the three herds.

I have ordered another carload, that we might have more experience with this product, and hence be better able to judge of its value as a food for dairy cows.—Mich. Farmer.

A Beet Harvester.

Of the Meyer (German) type consists of a triangular share, followed by two gratings forming a scoop. The share is sufficiently large to tear open the soil in two furrows, and the share moves in the direction of a straight line. The gratings receive the beets thrown out from the furrows, and the adhering dirt is separated. Another harvester has a share held by a rod, the upper end of which is sharpened and mounted on two wheels. The share cuts the ground under the beet, raises the root and forces it to slide upon the sharpened rod, where the lump of earth is divided into two, the liberated beet falling to the ground.

A Beet Seeder.

This seeder has its wheels arranged in such a manner as to allow its passage upon very irregular soils, at the same time keeping the exact spacing between the rows. The wheels are arranged on special sliding axles connected with universal joints, permitting them to rise or fall with all the unequal surfaces that may be met during the seeder's passage. Another combination consists in a parallelogram device connected with universal joints. This is reported from Germany.

Sarcasm Illustrated — Visitor: "Tommy, I wish to ask you a few questions." Tommy: "Yes, sir." Visitor: "If I give you the sentence, 'The pupil loves his teacher,' what is that?" Tommy: "Sarcasm."

Double Lateness—Manager (to errand boy who is half an hour late): "John, how is it you are always late in arriving, and always the first to leave?" John: "Weel, sir, ye wadna hae me late twice a day, wad ye?"

American Copper, Brass and Iron Works ESTABLISHED 1867

OTTO MEINSHAUSEN, Pres., Treas. and Mgr.

113-119 Michigan St., cor. La Salle Ave., CHICAGO, U.S.A.

City Address: "MEINSHAUSEN" A.B.C. Co.



Will Contract for complete Plants in any part of the world for **Brewers, Distillers, Beet Sugar Factories, Refineries, Glucose Works, Etc., Etc.**

E. H. DYER & CO.

BUILDERS OF

SUGAR MACHINERY

CLEVELAND, OHIO

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

Now Building the Factory at Berlin.

The Kilby Manufacturing Co.

FOUNDERS AND MACHINISTS

Corner Lake and Kirtland Streets,

Cleveland, Ohio

New York Office: 220 Broadway.

Builders of Complete Machinery for Beet, Cane and Glucose Sugar Houses and Refineries.

EIGHTH Canadian HORSE SHOW

Toronto Armouries: THURSDAY, FRIDAY and SATURDAY
April 10th, 11th and 12th

Entries close Monday, March 31st.

Address **HENRY WADE**
Parliament Buildings

REDUCED RATES ON ALL RAILWAYS

GEORGE W. BEARDMORE,
Chairman,

STEWART HOUSTON,
Manager.

HENRY WADE,
Secretary.

The Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

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.

Wanted—A married man (without children preferred) to take charge of a 90 acre farm, 3½ miles south of London. Must be a good practical farmer, understanding the care and feeding of cattle. He would have a farm hand to assist him. Permanent job to satisfactory man. Wages \$200 a year with brick house and garden supplied. References required. Work to begin at once. No. 938. a.

Wanted—A good smart reliable boy, about 14 or 15 years old to work on a farm near Warton. Good wages to smart boy. No. 939. a.

Wanted—A man to work on a 100 acre farm. No milking, light work, general farming. Wages \$150 a year. No. 940. a.

Wanted—A married man, with good executive ability, to take full charge and responsibility of an 800 acre farm, of which 600 acres are under crop. Would be required to look after 9 team of horses, cattle and other stock as well as farm machinery, etc. Farm situated 13 miles from Winnipeg and 1½ miles from railway station. To work either on a salary or a man with capital would be given equal interest in the farm. No. 941. a.

Ten years' experience, Dairy school graduate and winner of two gold medals. No. 984. a.

I wish to communicate with some person having a farm of 160 to 200 acres to rent, suitable for mixed farming. The farm should not be more than five miles from a railway station.

A. P. Westervelt.

Domestic Help Wanted

A young married woman desires a position for the summer either in Port Arthur or Fort William accustomed to working on a farm. The daughter 11 years old could help with the work. No. 989. a.

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 their 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

Ontario Agricultural College

This splendid institution continues to flourish and grow stronger and stronger year by year. The past year, however, has witnessed a decided forward movement and we take a great deal of pleasure in noting the progress made, from the annual report, just issued. Following are some extracts from the report of the President of the college.

The past year has been of marked activity and progress in the history of the Ontario Agricultural College and Experimental Farm,—alterations in buildings, new buildings, liberal donations by wealthy men, short special courses, and largely increased attendance of students.

BENEFACIORS OF THE COLLEGE AND THE PEOPLE OF CANADA

The winter of 1901 will be memorable in the annals of the college, and, we might say, of the Dominion; as then, for the first time in the history of the country, a man of means made a considerable contribution unconditionally to a public institution directly under the control of the Provincial Legisla-

Wanted.—Two men for dairy farm, must be good milkers, and of temperate habits. Wages \$200 a year. No. 934. b.

Wanted.—Three good men to do general farm work. Farm situated near Manilla. None but those having experience need apply. No. 935. b.

Wanted a good single man to take care of stock and do chores around the farm. Good wages to suitable man. Address Jas. Bowman, Guelph. b.

Wanted.—A good all round married man for farm work, must be good milker and have experience in feeding stock. House and garden supplied. Wages \$250 a year. Engagement to begin April 1st. Permanent job to suitable man. No. 937. b.

Situations Wanted.

A young man, 17 years of age, born and reared in the city of Toronto, but who has some experience in farm work, desires position by the year on Ontario farm. He is able and willing to do any kind of farm work. No. 985. a.

Wanted, a position as manager by a married man, aged 38 years, who has had 25 years' experience as gardener, fruit vegetable and gardening generally. Understand the care of poultry and bees. Total abstainer. No. 986. a.

Wanted a position by a middle aged man, as farmer or foreman. Accustomed to the care of horses and cattle, understands farm machinery and is a good market gardener. Can furnish good references. No. 987. a.

Wanted by a single man a position as teamster on a farm; understands the care of horses and all farm work. Can furnish good recommendations; good wages expected. No. 988. a.

Wanted.—A situation in creamery or city dairy, making delicious butter, ice cream and cheese, clarify and pasteurize milk and cream.



DR. JAMES MILLS, PRESIDENT ONTARIO AGRICULTURAL COLLEGE, GUELPH.

ture—then the late and much lamented W. E. H. Massey, of Toronto, with generous liberality, supported by his brother, Chester D. Massey, and his sister, Mrs. Lillian Massey Treble, placed at the disposal of the Ontario Government the sum of \$40,000 for the erection, heating, lighting, and furnishing of a College Hall and Library. This building to be known as "the Massey Hall and Library," is nearing completion and will be ready for occupation in June next.

This benefaction will be a lasting benefit to our Canadian farmers; and I am pleased to state that it has already drawn attention to the College and has raised it to a higher level in public estimation.

In the fall of the same year, 1901 another noteworthy event occurred. Sir William C. Macdonald, of Montreal, who has done such great things for McGill University by his magnificent gifts to the science department of that institution, and for the people of Canada by his large contributions for the establishment and temporary maintenance of Manual Training Schools in the different Provinces of the Dominion—this liberal, broadminded, and public spirited Canadian decided to give the Ontario Government \$125,000 for the establishment of a Department of Domestic Science, Nature Study, and Manual Training in connection with the Ontario Agricultural College, to train Public School teachers from any part of the Dominion, and provide practical education for women, especially farmers' daughters. Surely these two events in the same year constitute an epoch in the history of the college; and as president I wish to express my heartfelt thanks to the Massey family, Sir William Macdonald, Prof. J. W. Robertson, who has been acting for Sir William, and Mrs. John Hoodless, of Hamilton, who judiciously impressed upon Sir William the importance of training our girls in Home Economics, or the science

and art of housekeeping in its various branches and details.

SHORT SPECIAL COURSES.

With some hesitation, we decided about midsummer to offer two short courses in the winter of 1902,—one in Live Stock and Grain Judging, to commence on the 8th January and last for two weeks; and another on Poultry Raising, to commence on the 10th January and last four weeks.

The experiment is now a thing of the past, and we have to report that both these courses were an unqualified—we might say—a triumphant success. Nothing better could be desired.

On account of the practical work required we were unable to handle more than 30 in addition to the regular students, in the Poultry Department; but we were not obliged to place any restriction on the number to be admitted for Stock Judging; and the result was that we had 220 in regular attendance—110 more than we could accommodate in our live stock classroom. Hence we had to divide the class and repeat the course.

The instruction in both courses was given by our regular professors, the Hon. John Dryden (Minister of Agriculture), and a few of the leading stockmen and poultrymen of the Province.

The classes were composed chiefly of young men, but there was a very fair proportion of men over fifty years of age, all anxious to learn—so anxious that they were at the college every day at eight o'clock for Mr. Zavitz's talks, with practice, in grain judging, or Prof. Lochhead's on weeds and weed seeds; from 9 a. m. to 5 p. m., excepting an hour and a half for lunch, with Prof. Day, Dr. Reed, Mr. Cumming, and others in judging horses, cattle, sheep, and swine; and from 7.30 to 9.30 p. m., listening to lectures in the class-room.

We hope to continue these short courses from year to year.

ENGLISH, WITH A REFERENCE TO SOME RECENT CRITICISMS.

Now and then we hear through a newspaper or an agricultural journal that the "ideal" agricultural college does not teach anything but technical subjects (sometimes spoken of as the practical branches, such as field agriculture, live stock, dairying, poultry raising, and horticulture), with a smattering of a few sciences—how to handle manure, dig and plow the soil, plant and sow crops, and judge, breed, feed, and care for horses, cattle, sheep, and swine. That is all a farmer needs, and why should an agricultural college spend time on anything else? Boys at an agricultural college studying English! Absurd! They might as well study Greek or Hebrew. So says our critic.

Professional men, like the writer of this article, should, of course, spend some time in learning how to speak and write their mother tongue, that they may be able to take their place and hold their own in the affairs of church and state; but what do farmers need with speaking and writing? Their business is to dig, delve, and grub; and their education should be strictly confined to the study and discussion of the best methods of performing these interesting operations. They are the foundation of our business, social, and political fabric, as some professional men and editors in their easy chairs love to call them—the stone and mortar down in the earth, to support the beautiful and complicated structure of brick and wood so skilfully erected on top of them. That is their place. There they should stay; and if they must have some knowledge of English, let them go to the public and high schools for it.

In reply I venture to affirm that not five in every fifty of the young men at our college could get the money and spare the time necessary to take a High School course and afterwards spend two years at the Agricultural College; and what benefit would it be to the forty-and-five, or 90 per cent. that English is well taught in the High Schools? If they can learn some English while they are studying technical subjects at the Agricultural College, well and good. If not, they must, like the great majority of the Short Course students in "The Ideal Agricultural College" enter upon the duties and responsibilities of life in gross ignorance of this most important of all subjects to the average citizen in this country.

Further, it is all right, and in fact necessary, for students in a medical college to study the elements of inorganic and organic chemistry before proceeding to apply the principles of chemistry in the later technical studies of the practice of medicine; but not so, says our critic, with students of agriculture. It is a waste of time for them to study the principles of chemistry. They should proceed at once,

"with
in "
ic cl
"the
prac
and
learn
ed to
the
or n
In
that
in e
place
best
and
whic
able
long
to c
thing
tain
beca
sults
term
stand
princ
tural
of in
istry
grave
mista
find
of ou
We
cours
all st
be de
towa
above
hewe
water
the c
say i
bread
be er
share
they
good
show
men
taugh
pract
pendi
funda
botan
the s
princ
chemi
ture.
say t
cation
a limi
lish, t
reason
their
Hal
are sh
to ta
own
ses si
learn
good
have
press
Englis
a non
—abo
Hebre

Mon
gold, t
and wi

"without a particle of instruction" in "elementary inorganic or organic chemistry"—at once to discuss "the fundamental principles and practices of agricultural chemistry and plant life," not studied or learned by themselves, but "delivered to them," ex cathedra, "without the fripperies of scientific formulas or nomenclature."

In answer to this, I would say that short courses and short cuts in education are all right in their place. They are, no doubt, the best thing for some people, young and old, and for those colleges which cannot induce any considerable number of students to stay long enough for anything else: but to commend them as the ideal thing for all farmers, and to maintain that students of agriculture, because of the hurry to get at results, should proceed at once to use terms which they do not understand and discuss the foundation principles and practices of agricultural chemistry, without a particle of instruction in elementary chemistry, is, to say the least, a very grave educational mistake—such a mistake as I would not expect to find in the editorial columns of one of our best papers.

We are disposed to give short courses their proper place; but to all suggestions that nothing should be done in our Agricultural College towards raising Canadian farmers above the level of mere drudges,—hewers of wood and drawers of water for the educated classes of the community,—we emphatically say no. The purely practical, or bread-and-butter, subjects should be emphasized and receive a large share of time and attention, as they do in this college—and with as good practical results as can be shown anywhere else but our young men should, at the same time, be taught in the simplest and most practical way and with as little expenditure of time as possible the fundamental principles of chemistry botany, etc., as a preparation for the subsequent application of these principles in agricultural and animal chemistry, dairying, and horticulture. They should also, in view of the general neglect of the early education of young farmers, be taught a limited amount of practical English, to give them something like a reasonable facility in the use of their mother tongue.

Half the farmers in this country are shorn of their strength and fail to take their place and hold their own among the professional classes simply because they have never learned to speak and write fairly good English; and all the while we have wiseacres in the agricultural press and elsewhere telling us that English in an agricultural college is a non-essential, a sort of side issue,—about as much use as Greek or Hebrew.

BIBBY'S CREAM EQUIVALENT

FOR CALF REARING

It has the largest sale of any article of its kind.

Its sale is steadily increasing.

It is superseding other articles which had previously been used for the same purpose.

Price, 50-lb. bag, \$2.00; 100-lb. bag, \$3.50, freight prepaid to nearest railroad station. To be obtained from local dealers or direct from

J. BIBBY & SONS

10 BAY STREET, TORONTO

Binders	Mowers	Reapers
Headers	Rakes	Header Binders
Corn Binders	Shockers	Huskers and Shredders
Binder Twine	Knife Grinders	Rice Binders



Write now for . . . **THE WORLD CENTRE** A Beautiful Book.

ADDRESS

P. W. Stanhope, Canadian Manager, Toronto, Canada.

McCormick Harvesting Machine Co.
CHICAGO, ILL.

When Writing to Advertisers mention
THE FARMING WORLD.

Monkey Brand Soap makes copper like gold, tin like silver, crockery like marble, and windows like crystal.

The Farm Home

Johnnie's April Fool.

April Fool! You bet that's me,
Tried to fool the others—Gee!
Didn't do it, nary bit,
I'm the kid that foolin' hit.
Put salt in the sugar bowl;
Cotton in Pa's breakfast roll—
Pepper in cook's buckwheat dough,
Thought I'd eat plain bread, you
know.

Breakfast time—rolls were all right,
Pa said he'd just take a bite,
Wouldn't wait for any cakes,
Ma said, "John'll eat all Ellen
bakes."

Sugar showed up where it should;
My! Those rolls looked awful good;
Did I eat 'em? Not a one;
Ate those pepper cakes. My fun
Was most awful hot, Ma said
"Johnny, eat a little bread."
But I said the cakes were best,
Ma stared, an' so did the rest.
That was where I thought I caught
her

Till she fetched a pail of water.

I can sometimes fool my pa,
But you bet I can't fool ma;
Next year, when I want to fool
I'll take some kid that goes to
school.

—Katharine Hathaway in What to
Eat.

A Lecture to Farmers' Wives and Daughters.

By special arrangement of Prof. Dean a lecture was given by Mrs. Joy to the ladies living in the vicinity of Guelph. The day was delightful and the ladies drove in from all parts in such numbers as to quite fill the large lecture room.

Mrs. Joy in addressing them, said it was a long time since she had been associated with farm life, but her knowledge of it in previous years enabled her to understand the difficulties as well as advantages of those living in the country.

It was her purpose that afternoon to tell them why certain things should be done rather than how they should be done. Many women all their lives have been doing things the wrong way, not willingly so, but because they knew not the proper method. Science has been defined as organized common sense.

It has only been of recent years that science has taken up the matter of cooking. Now much time and thorough investigation is being given this all important subject.

Each individual ingredient in food has its own special value and use in the economy of the human system and it is a wise and intelligent cook that so combines these as to furnish the necessary nutriment at each meal. The aim of every housewife should be to get the maximum good from food at the minimum expenditure of cost, energy and time.

The quality and quantity of food depends upon the age, condition,

climate, season and habits of life. A man living on a farm and working hard out of doors all day, thrives on food that would bring sickness to a man who spends his time in an office or store. The one, owing to his energetic life needs plenty of starchy foods and fats, while the office man neither requires or craves a large supply of such foods.

It has been found on trial that an average sized man at work will keep well and strong on about the following daily allowance:—

Proteids, or muscle forming foods, 3.5 oz.

Fats, foods which give heat, energy and make fat, 1.7 oz.

Carbohydrates, starchy foods which do largely the same work as fats, 17.5 oz.

Mineral salts, foods which make bone, hair and nails, 1 oz.

Water, part of which is contained in the food, 3 pints.

Mrs. Joy enlarged on the important part each special food played in sustaining the body. Very often fats are not considered necessary apart from the heat and energy they produce. They build a dispose or fatty tissue, nourish the nerves and aid digestion.

Digestion means turning solid foods into a liquid mass. Meats are changes to peptones, and starch to sugar, and if anything interferes to prevent this change they cannot be taken up and used by the system.

The value of a food depends not only on the nutrients it contains but largely on its digestibility.

Very often the nourishing properties of food are destroyed in cooking because the food has been so prepared as to make it indigestible. There is a saying that "boil meat hard and it will be hard." The meat should be put into boiling water then set back where it will gently cook and at the same time not toughen or harden the tissue.

The same holds good in baking meat. Put it into a real hot oven, to sear the outside so as to keep in the juices, then check the fire.

On the other hand all starchy foods need to be cooked at a high temperature so as to burst open the tiny starch cells and thus liberate the starch. Just examine a well boiled potato and you can see these little cells all broken open. The same thing happens when you pop corn.

Speaking of vegetables Mrs. Joy said they had a high dietetic value. Apart from the sugar, starch and mineral salts they contained—the waste matter—the unavoidable cellulose aids digestions by lightening up the heavier food and making it in a form more easily acted upon by the digestive juices. The cellulose also stimulates the action of the intestines.

In all vegetables, the nearer the heart the more woody and poorer the flavor, so in preparing potatoes carrots, etc., we should be careful to take a very thin paring off. Ow-

ing to some vegetables containing sulphur, they cannot be eaten by some people without causing flatulency or a feeling of distention.

Fresh vegetables should cook in 20 minutes, old ones in 30 minutes.

Diet should be varied as well as mixed. Entire dependence should not be placed on potatoes to supply the starch. A good housekeeper will familiarize herself with the general composition of the common foods so that she may readily think of suitable combinations and know how to supply a lack of one food by using another of a similar character.

Mrs. Joy prepared and cooked before the class, a ginger bread, a veal cutlet, and parsnips and white sauce.

GINGER BREAD.

$\frac{1}{2}$ cup molasses, $\frac{1}{4}$ cup hot water, 1 tablespoon lard, 2 tablespoon sugar, 1 tablespoon ginger, $\frac{1}{2}$ teaspoon soda, $\frac{1}{2}$ teaspoon salt, 1 cup flour.

Sift all the dry ingredients together and bake in a moderate oven for 25 minutes, or until done when tested with a broom straw Mrs. Joy says there is no test more reliable than inserting a piece of broom in the cake and having it come out clean.

This cake may be varied by adding raisins or candied ginger and $\frac{1}{2}$ teaspoon each of cinnamon and cloves. In such a case use slightly more flour.

VEAL CUTLETS.

Trim the cutlets, dredge them with flour, then dip them in beaten egg to which may be added a little water, turn over in bread crumbs which have been seasoned with pepper and salt. Put into a hot frying pan in which there is some lard or dripping and when browned on both sides add a little water, cover closely and cook slowly for 20 minutes.

Veal is in season from March to November. It is a short grained immature meat, and with some is hard to digest.

PARSNIPS AND WHITE SAUCE.

Scrape the parsnips, cut into stripes and put them on in boiling salted water. Cook until easily pierced with a fork. Drain, put into a dish and cover with a sauce made by melting together one tablespoonful butter and one of flour, add one cup milk a little pepper and salt, cook until it coats the spoon.

At the close of Mrs. Joy's demonstration, Miss F. Hudson in behalf of the lady dairy students thanked Mrs. Joy for her kind and helpful instruction given them during the cooking course and presented her with a bouquet of flowers.

Laura Rose.

O. A. C., March 25.

Hints by May Manton.

GIRL'S FOUR-GORED PETTICOAT, NO 4043.

Little girls as well as their elders have need of well-fitted underwear if the pretty frocks are to appear at their best. This carefully-shaped petticoat was designed with that



4043 GIRL'S FOUR-GORED PETTICOAT 4 TO 12 YRS.

fact in view and can be relied upon to give entire satisfaction. As shown, it is of white cambric with frill of needlework, but taffeta, Sicilian and gloria are all correct, as well as the various white fabrics. When made from silk or wool a plisse flounce makes the best substitute for the embroidered one although a bias ruffle, gathered, is correct.

The skirt is cut in four gores, so providing a straight back, that can be trusted to launder satisfactorily. To the lower edge is joined a deep gathered flounce that, in turn, is edged with a frill. The upper edge is finished with a pointed yoke band, applied over the material, that can be drawn up to the required size by means of tapes or ribbons.

To cut this petticoat for a girl of 8 years of age, 3/4 yards of material 21 inches wide, 2 1/2 yards 27 inches wide, 2 1/2 yards 36 inches wide or 1 1/2 yards 44 inches wide, will be required, with 5 yards of needlework for frill.

The pattern 4043 is cut in sizes for girls of 4, 6, 8, 10 and 12 years of age.

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

Two of a Kind—A lady gave her little niece on her birthday a beautifully mounted stuffed kitten. "But aunt, I can't take it!" exclaimed the little girl. "Why not?" "Because I've got some little birds." "This cat won't catch your birds; it's a stuffed cat!" "But my birds are stuffed ones, too."

One ounce of Sunlight Soap is worth more than two ounces of common soap.

SUNLIGHT SOAP REDUCES EXPENSE

Ask for the Octagon Bar

Flowers in the Garden.

Every garden should have a corner devoted to flowers grown for the purpose of cutting. The best flowers for this purpose are sweet peas, sweet alyssum, scabiosa, asters, ten-week stock, calliopsis, phlox, nasturtiums and Marguerite carnations.—Eben E. Rexford, in the April Ladies' Home Journal.

Latest Spring Fashion Notes

Sleeves are increasing every day in size, and it seems not at all unlikely that before the summer we shall be wearing the flowing sleeves so fashionable in the early forties.

The prominence of stripes and small checks in all the new spring and summer materials is very marked, and applies to silks and washable fabrics as well as to woolen goods.

White skirts will prove popular again during the coming white and cotton season, for such goods are in full sway, and cool, dainty, freshly laundered frocks will this summer reign supreme.

Braid laces describe well the new laces made of white washable braids for summer gowns. These laces come in lovely patterns and in various widths suitable for skirt as well as for bodice trimming.

For morning and all informal occasions pretty and sensible blouse and skirt gowns will be much more worn than they were last year. Linen, Madras, duck and Holland will be much in evidence for these gowns.—April Ladies' Home Journal.

Hints About the Newest Hats

The new hats remain, in nine cases out of ten, low and flat both as to shape and style of trimming—showing a very decided tendency to fall low over the hair in the back, and to droop well over the edges of the brim at all times. This fashion is decidedly a pretty one, especially in summer hats, as laces and flowers can be used most effectively in this manner. Many of the larger hats show uneven brims, the edges being bound with silk and wired into drooping and downward or sharply upward curves, becoming to any face.—Mrs. Ralston, in the April Ladies' Home Journal.

A Delicious New Salad Dressing

A most delicious dressing for green salads is made by putting one tablespoonful of lime juice in a bowl adding a teaspoonful of celery salt, a teaspoonful of white pepper and a dash of cayenne. Mix in a little at a time, alternately, three tablespoonfuls of oil and two of lime juice. Stir at the time, or the ingredients will separate. Add a tablespoonful of finely cut chives, or an equal amount of chervil or fresh tarragon leaves.—April Ladies' Home Journal.

HAMMOND'S EARLY MICHIGAN POTATO

This Marvelous, Extra Early Potato originated by **HARRY N. HAMMOND SEED CO. Ltd** Box 230 BAY CITY, MICH.

Largest growers of seed potatoes in America, 30 best varieties. Northern Gown always best. Blight proof. No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

CONSCIENCE SEED

Like the sound of "Yes!" But doesn't our 2,000 careful annual tests for purity and quality and the great care in selecting stock have led of conscience thrown earnestly into it? "Yes!" Well then, I will take the liberty of the heading and submit the property of it to the experience of many hundreds of thousands of my old customers. Seed catalogue free.

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

Brains on the Farm

As much needed there as anywhere to be successful. Don't plod; learn to farm intelligently through our home study course in **MODERN AGRICULTURE**. Treats of soils, tillage, drainage, fertilizers, crop rotation, stock feeding, dairying, etc.

Wm. F. Brooks, Ph. D. (Mass. Agr. College), Head of Dept. Text-books free to our students. Send for 50-page booklet telling all about it. THE HOME CORRESPONDENCE SCHOOL, Temple Building, Toronto.

Prize Gardening

How to Derive Profit, Pleasure, Health, from the Garden

Actual Experience of the Successful Prize Winners in the American Agricultural Gardens Contest.

Compiled by **G. BURNAP FISKE** FIVE THOUSAND GARDENERS

all over America kept a daily record of the methods and results for a whole season, and reported thereon fully in competition for many small and large prizes. They represented all grades from the small amateur to the professional market gardener. This unique book summarizes the most useful of all this experience. Each man or woman has definite ideas, and is testing them by successful garden practice. The very difference in the conditions and methods constitutes the particular value of the chapters, since readers everywhere will find that some at least of the descriptions are particularly adapted to their needs. Most important of all, every line is from actual experience. The result is a mine and treasure-house of garden practice. Careful editing has put this mass of experience into available, useful and fascinating form. The chapters tell the story of the contest, describe the grand prize gardeners' methods, gardening for profit, good farm gardens, the home acre, town and city gardens, experimental gardening, methods under glass, success with specialties, prize flowers and fruits, lessons from winners, success in town or city, fertilized gardens, gardening by women, boys and girls, irrigation, secrets.

Illustrated with many charts, sketches, etc. from original photos 225 pages 5x7 inches, bound in cloth. Price \$1, postpaid.

THE FARMING WORLD, TORONTO, ONTARIO.

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. McAINSH, PUBLISHER.
J. W. WHEATON, EDITOR.

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

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

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

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

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.

Results at Kingston Dairy School.

The results of the "Long Course" examinations at the Kingston Dairy School, which closed on February 25th, have been published. The successful candidates are: L. Taylor, H. Felons, R. C. Fowler, W. J. Thompson, G. J. Ward, Geo. Hudgin, E. Maynes, T. O. McFadden, ranking in the order named. The following failed in one or more subjects: Chas. Bushby, R. Foster, A. Pattison, Frank Perry, Hugh Warner, A. P. Williams.

Dominion Cattle Dealers

The annual meeting of the Dominion Cattle Dealers' Association was held last week at the Toronto cattle market. The president, Mr. John Dunn, occupied the chair. Through the association's efforts the attention of the Government had been drawn to the condition of the cattle yards at West St. John's, N. B., and they had been greatly improved by the Government, so that there was now nothing to complain of. The association had also drawn the attention of the Government to a recent outbreak of anthrax in the Northwest, and had obtained from the Government an assurance that everything would be done to prevent the spread of the fatal disease to Ontario. Through the efforts of the secretary, Mr. F. Hunnisett, the association had been incorporated under the benevolent association's act, which gave them the advantages of a limited liability company without the expense of incorporation. The old officers were re-elected, excepting one who had left the association. Mr. Joseph Gould was elected in his place. Mr. D. McDonald was made an honorary director.

After the regular business was

transacted several subjects of interest were discussed. Complaint being made in regard to the frequent bruising of cattle during transport, the secretary was instructed to obtain information as to the law upon the subject of accommodation of cattle in transport, both in Canada and the United States, so that they might be compared and that the American regulations, which were known to be better than those of Canada, might be made use of in an endeavor to have the Dominion Government make new and adequate enactments for the Canadian trade.

The dealers have a grievance against the Grand Trunk Railway west of Guelph and along the Midland division. On both these lines there were long and needless delays which were of great injury to the shippers, as the cattle were frequently left standing for hours on a siding, in the sun, and they not only lost materially in weight but were sometimes found to have died as a result of this kind of treatment. It was left with the president and the executive to take whatever steps they could to bring the railway to a proper appreciation of their responsibilities in this matter. The president undertook to interview the railway authorities immediately on the subject, and the executive will also consider the question at its next meeting, and adopt whatever steps are necessary to second the efforts of the president, and to have the evils remedied.

A grievance, of perhaps a more serious character, was mentioned by Mr. E. Snell. He stated that last November he had shipped a quantity of cattle and sheep by the Donaldson liner Laconia at Montreal, and that the steamer was then expected to be going directly to sea, as it is provided that all steamers shall do so immediately after the embarkment of their cargoes of cattle. Instead of this, however, Mr. Snell complains that the vessel stopped at Quebec, to take on a cargo of lumber, and that a delay of six days resulted, from which he lost \$700. He made an offer to the company to compromise his claim for \$300, but had been unable as yet to obtain any satisfaction. The secretary was instructed to obtain all the information he could on the law relating to such matters, so that they might be in a position to obtain justice from the various transport companies when their interests were unjustly sacrificed contrary to the provisions of the law.

Bigamy Prohibited.—"Boys," said a teacher in a Sunday school, "can any of you quote a verse from Scripture to prove that it is wrong for a man to have two wives?" He paused, and after a moment or two a bright boy raised his hand. "Well, Thomas?" said the teacher, encouragingly. Thomas stood up and said, "No man can serve two masters." The question ended there.

A Common Bred Cow



When toned up by Dick's Blood Purifier will give as much and as rich milk as a highly bred aristocratic Jersey cow gives upon ordinary feed, and a Jersey cow when given.

DICK'S BLOOD PURIFIER

will wonderfully increase her yield of milk. It saves feed too, because a smaller amount of well digested food satisfies the demands of the system and every particle of nourishment sticks.

50 cents a package.
Leeming, Miles & Co., Agents,
MONTREAL.

Write for Book on Cattle and Horses free.

FARMER WANTED

We want a reliable man with a horse and rig in every township to take subscriptions for THE FARMING WORLD in connection with our New Cabinet Sewing Machine at half price. If you are in a position to work hard for two or three weeks, write us today, name the township you wish reserved for you, and at the same time give us the names of two good men as references. We will name terms that will surprise you.

See advertisement of machine on another page.

Write to-day. Address

THE FARMING WORLD,
Confederation Life Building, TORONTO

CANADIAN PACIFIC RY.

SETTLERS' One-Way EXCURSIONS

To Manitoba and Canadian North-West will leave Toronto every TUESDAY during MARCH and APRIL, 1902.

Passengers travelling without Live Stock should take the train leaving Toronto at 1.45 p.m.

Passengers travelling with Live Stock should take the train leaving Toronto at 9.40 p.m.

Colonist Sleeper will be attached to each train.

For full particulars and copy of "Settlers' Guide" apply to your nearest Canadian Pacific Agent, or to

A. H. NOTMAN, Asst. Genl. Pass. Agent,
1 King Street East, Toronto.

CONSTIPATION INDIGESTION TORPID LIVER

These are the great curses which afflict three-quarters of the present generation. Sufferers from either one or all of them must always feel miserable, and sooner or later become chronic invalids, useless to themselves and a burden and nuisance to friends and family. There is one sure, safe and absolute cure which you can test without any expense. Our remedy is Egyptian Regulator Tea, a trial package of which we will send you free and prepaid on request. Unless you find our claims are true, we must be the losers by this liberal act. Shall we send you the trial package, and lead you to perfect health and happiness? Address

THE EGYPTIAN DRUG CO., New York.

Corn Planting
 must be well and carefully done, as the future crop depends upon it. For all purposes, in any soil, on all kinds of ground nothing equals the



SPANGLER CORN PLANTER.
 It saves time, labor, money and insures the crop. You know when it is working; you can see the corn on its way to the ground. Made with or without fertilizer attachment. Now device for sowing peas, beans, castor, etc. We also make the famous Spangler Law, Down Grain and Fertilizer Drill. Write for catalog and price.

SPANGLER MANUFACTURING CO., 510 Queen St., York, Pa.

Testing Seed Corn.

The corn crop is an important one in Canada and farmers should give every attention to having the seed planted of as strong vitality as possible. The Illinois Experiment Station is asking the corn growers of that State for information regarding the vitality of the seed they are about to plant and in a circular recently issued give the following plan for selecting and testing the seed corn:

Select from different parts of the supply of seed corn 100 ears of average size and appearance. Take out one kernel for testing from near the middle of each ear, making 100 kernels in all. If the seed corn is shelled pick out from different parts of the bin 100 kernels. Fill an ordinary China dinner plate with sand and pour water on the sand until it runs off the plate. Shake the sand down firm and level in the plate and run off the extra water not retained by the sand. Stick the kernels selected for testing point down in the sand 100 kernels to the plate. Sprinkle a little dry sand over the wet sand, turn a second smaller plate over the first to prevent the too rapid evaporation of moisture and set in a warm place, under the stove or in a warm room. The temperature of the ordinary living room is warm enough to sprout the seed.

PRECAUTIONS.

1. If the sand becomes dry sprinkle warm water (not too hot to hold the hand in) over it until the sand is thoroughly moistened.
2. Wait until the kernels are pushed out of the sand by the young plants. Do not dig them up until the end of ten days.
3. Use as fine sand as can be procured. It will hold the moisture longer than coarse sand, hence will furnish more favorable conditions for germination.

It is suggested that by pinning little pieces of paper numbered from 1 to 100 on the ears and then placing the kernels from the respective ears in regular order in the plate of sand as 10 rows across the plate with 10 kernels in each row, one can easily tell to which ears the kernels belong which do not germinate. Remember that it requires only 10 good ears to plant an acre of corn, and that one bad ear out of 10 may mean 6 or 8 bushels loss at harvest time. All ears whose kernels do not germinate should either be discarded immediately as unfit for seed, or they should be given a more thorough trial by testing ten kernels from each of such ears and unless each one of the 10 kernels germinates, the ear should be discarded.

If possible test every ear of seed corn; if this is not possible then select the ears so that they will represent as nearly as may be the average of the seed corn.

At the end of five days 95 per cent. out of the tested kernels should have sprouted. If five per cent. of the kernels fail to sprout it indicates poor vitality. Such seed

Select Bacon Hogs in Eastern Ontario.

In the issue of March 18th, Mr. W. E. Pollard, referring to a previous letter from the Dominion Live Stock Commissioner, in regard to the low percentage of select bacon hogs in Eastern Ontario, asked for the particular section supplying this poor quality. In reply Mr. Hodson sends us for publication the following letter from the Geo. Matthews Co., Limited, Hull, Que., dealing with the matter:

"Referring to your letter of 24th inst., enclosing clipping from The Farming World about hogs raised in the vicinity of Bowmanville, we have to say that these hogs are sold to either Toronto or our Peterboro house. We have not had any hogs from that vicinity for some few years.

"The hogs referred to as Eastern Ontario stock were hogs bought east of Belleville, and the hogs more particularly east of Smith's Falls, are raised and sold quite regardless of securing a bacon hog. The reason is that they are used in a large measure for the butcher trade in Montreal, but if the quantity is increased much there will be more hogs than Montreal butchers can use, and the farmers then will find that they must cater to the English taste.

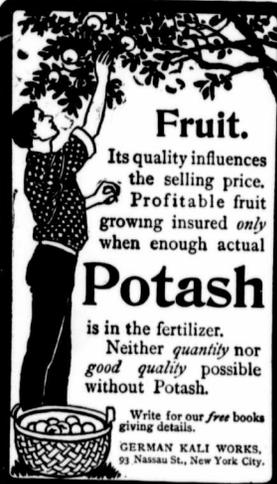
"We find in the hogs that are coming forward now about 50 p. c. are graded as leanest and lean bacon. The former, of course, is the highest priced bacon. This varies from 20 to 30 p. c. or say an average of about 25 p. c. of the total weight of hogs delivered to our packing house here.

"If we could secure a large percentage of hogs that would make leanest bacon, say 75 to 85 p. c., it would mean a great many dollars in the pockets of Canadian farmers to what they are now receiving in not paying proper attention to raising the class of hogs wanted."

Man Wanted

who understands gardening and care of ornamental grounds, to assist on fruit farm. Must be quick, intelligent and handy. Teetotaler preferred. Free house, garden, fuel, milk, and eighteen dollars per month. Protestant churches and school close. State whether married, age, experience, references, and whether understands grafting.

M., Box 2407, Montreal.



Fruit.
 Its quality influences the selling price. Profitable fruit growing insured only when enough actual

Potash
 is in the fertilizer. Neither quantity nor good quality possible without Potash.

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

Thomas-Phosphate Basic Slag

QUALITY THE HIGHEST
 PRICE THE CHEAPEST

Percentage - Phosphoric Acid
 Fineness and Purity Guaranteed

Manufactured by The Leeds Phosphate Works, Limited

Write for particulars and pamphlets to

G. CAMPBELL ARNOTT

Agricultural Chemist

12 Richmond St. E. - Toronto

General Agent for the American Continent.

FITS Liebig's Fit cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is constantly recommended to the afflicted. If you suffer from

EPILEPSY, FITS, ST. VITUS' DANCE,
 or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid. It has cured where everything else has failed.

When writing mention this paper, and give full address to

THE LIEBIG CO., 179 King street west, Toronto.

CURED

Catarrh and Consumption

I have spent nearly 20 years in the treatment of the above named troubles and believe I have effected more permanent cures than any specialist in the history of medicine. As I must soon retire from active life, I will, from this time on, send the means of treatment and cure as used in my practice. Free and post-paid to every reader of this paper who suffers from these loathsome, dangerous and disgusting diseases. My treatment will positively give prompt relief and cure in the worst cases. This is a sincere offer while space is free to accept. Address, PROFESSOR J. A. Lawrence, 14 West 3rd St., New York.

should not be planted as the result will be weak plants, an uneven stand and a poor yield.

Seed Grain Selection.

Mr. John S. Pearce, of London, in addressing a meeting of farmers and dairymen held recently at the Strathroy Dairy School, gave some excellent advice upon the selection of seeds. Mr. Pearce is an old seedsman himself and his remarks bear out what we said when discussing this subject a few weeks ago. His remarks are summarized as follows:

Farmers at the present time are not careful enough in selecting, screening and exchanging seed. The first requisite is to obtain good, clear seed, although even then it may not be good, and should be tested before sowing, to see what percentage will germinate. Even in so-called clean seed there is often found from 5 to 15 per cent. of dirt. Farmers are altogether too anxious to buy cheap seed, no matter what the quality. From a test made at the Pan-American, Mr. Pearce showed that those who bought seed for half the highest market price were in reality paying from two to eight times as much for pure germinating seed as if they had bought the best. A good fanning mill will keep out a great deal of the dirt. You should buy seed having a strong, vigorous type and good germinating power, which will produce a true type of its variety. In buying you cannot always judge by weight, size and color, although these are requisite to good seed. Good seed cannot be sold cheaply, as the grower has to give patient and extensive labor for years of valuable time. The grower must endeavor to keep the strain uniform and place it on a higher level of purity, vigor and perfection. Farmers should grow their own seeds for many crops, such as roots. By keeping some of the best turnips over winter and transplanting them, they could grow the very best seed. The seed gardens of the world are England, France and Germany, and these will supply any grade of seed the dealers call for. In some cases seeds are bought for less here than the wholesale dealers pay for them in Europe. This kind is quite evidently not first-class. You can even buy seeds that are warranted not to grow. Farmers patronize local cheap men, among whom fair competition is almost impossible, since the appearance of commercial seed is a slight indication of their value. No, you can't tell turnip from rape seed by appearance. You must trust your dealer for that. If you flay your seed they will sow better, as there are sometimes three or four in a bunch which will clog.

The Selecting of Seeds.

It is all a matter of taste. Some of us like to grow the largest pumpkin, some the largest chrysanthemum, some one thing, some another. But all of us like to

plant seeds and watch their growth. The seed of the meanest tomato is much like the seed of the finest tomato, therefore, when seeds are to be selected, the work must be done by an expert. After a seed has grown into a plant, blossomed, and borne fruit, it is too late to decide that the seed was of poor quality.

I have met an expert, and he told me many things.

He keeps a seed house in the city of Toronto, and sends his seeds—"Rennie's seeds"—all over the world. And, stranger still, he grows his seeds in every part of the world. When the snows lie heavy upon Canadian soil his growers are hoeing and cultivating and watering in other lands. Bulbs from tropical climes, rare flower seeds from sunny countries, hardier seeds

from countries much like our own, these he is always growing under the direction of his foreign representatives. When ready for planting, he gathers them from the four corners of the earth into his Canadian warehouse, inspects and prepares them for the Canadian grower.

And, similarly, he grows all kinds of Canadian seeds on farms in various parts of Canada, collects them, inspects and prepares them, and sends them all over the world—to England, France, Germany, and even to far Australia.

The seed business in Canada is growing, the demand for seeds is increasing in every province, but Ontario has always been, and is likely to remain, the seed centre for Canada. The climate of Southern

**Kills the Bugs.
Feeds the Plant.**



Pat. in Canada Nov. 2, 1897, Jan. 25, 1900.
NON-POISONOUS. PREVENTS BLIGHT.

**Insure
Your Crop**

Against destruction by bugs or worms by using

"BUG DEATH"

It kills potato, squash and cucumber bugs; current, gooseberry and tomato worms, and all bugs and worms that eat the leaves of plants.

Bug Death increases yield. It pays to use in every way.

Send for free booklet.

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



International Stud Barns

Importers of Clydesdales and Shire Stallions

Our last importation was Sept. 6. Our next importation will arrive March 16. A few Canadian stallions for sale cheap. Write for particulars. Remember, next arrival March 16.

J. B. HOGATE, Sarnia, Ont.

OAK LODGE YORKSHIRES



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

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

Prices are reasonable.

J. E. BRETHOUR, Burford, Ont.

W. C. EDWARDS & CO. Breeders and Importers

FINE GROVE STOCK FARM, Rockland, Ont.

On the C.P.R. and G.T.R. Railways. Special bargains on young bulls of superior merit and select Scotch breeding. Also thick young heifers at the right prices.

Ayrshires, Jerseys, Shropshire Sheep, and Clydesdale Horses.

Post Office, Telegraph Office, and Steamboat Landing, Rockland, Ont., on the C.P.R.

W. BARNET, Manager.

LAURENTIAN STOCK and DAIRY FARM, North Nation Mills, Que.

Ayrshires, imported and home-bred herd headed by imported Tam Glen Sire, No. 1310 D. A. H. B. Jerseys all of the celebrated St. Lambert family; herd headed by Lagar Fugis of St. Anne's, 2574 A. J. C. C. Berkshire Pigs. Young stock of all the above breeds for sale.

Post Office, Telegraph Office, and Railway Station, North Nation Mills, P.Q., on the C.P.R.

A. E. SCHRYVER, Manager.



STOCK.

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

J. A. RICHARDSON,
SOUTH MARSH, ONT.
BREEDER OF HOLSTEINS, Dorset Horned Sheep, Tamworth Swine.

E. PANNABECKER,
Fairview Farm, Hespeler, Ont.,
BREEDER OF REG. HOLSTEINS, STOCK FOR SALE.

W. R. BOWMAN
Mt. Forest, Ontario
Is offering 2 richly-bred Shorthorn Bulls at \$80; one Polled Angus Bull \$85; Plymouth Rock eggs 5 settings for \$2; Yorkshires always on hand.

FOR SALE
Shorthorn Bulls from 10 to 11 months old. Also some choice 2 year old heifers, all red and low set down.
JAMES BROWN,
Thorold, Ont.

JOHN DRYDEN
BROOKLIN, ONTARIO
BREEDER OF
CRUICKSHANK SHORTHORNS and CHOICE SHROPSHIRE SHEEP
Choice Young Bulls and Ram Lambs for sale. Write for prices.

IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM
A few choice HOLSTEINS, both sexes, bred from Pan-American prize-winner.
WM. H. SIMMONS,
New Durham, P. O., Ont.

Glen Crescent Shorthorns and Oxfords
Two Young Bulls by imp. "Precious Stone" and imp. "Blue Ribbon" for sale. Can spare a few more Oxford females.
J. W. WIDDFIELD,
Uxbridge, Ont.

T. Douglas & Sons, Strathroy, Ont.
Breeders of Shorthorns and Clydesdales
100 Shorthorns to select from. Herd bulls (imp.) Diamond Jubilee—28861—and Double Golt—37892—, April offering—8 grand young bulls, and cows, and heifers of all ages. Clydesdales—1 three-year old stallion and one four-year old mare (in foal).
Farm one mile north of town.

ANNANDALE STOCK FARM HAS FOR SALE
4 Holstein Bulls, 1 month to 12 months
10 Improved Yorkshire Boars, 2 months to 10 months
8 Sows, 2 months
The above are eligible for registering, and certificates will be furnished.
6 Holstein Grade Bulls, 2 months to 10 months, from the best milkers in the Annandale herd.
Correspondence promptly answered. Inspection specially invited.
The Annandale Stock Farm
Tilburg, Ont.

A. HAGAR
Bellevue Stock Farm, Plantagenet, Ont., breeder of Scotch Shorthorns and pure bred Shropshire Sheep. Young bulls and heifers for sale, also Shearing Rams and Ewes.
Prices Reasonable.

Ontario is most suited for the the growing of garden and farm seeds in great variety, for the production of small fruits of all kinds, and for the cultivation of flowering plants for decoration purposes. Toronto, as the great distributing centre of the Province, will remain the centre of the seed business. Rennie's seeds have been favorably known for 32 years, and they will, no doubt, continue to maintain their leading position.

How to Raise Goslings.

The following information upon the care of goslings will be found of value to poultry raisers:

When the eggs hatch do not allow the mother or young to leave the nest for the first 12 to 24 hours. The goslings thus become thoroughly dry and strong and may then be safely removed, with the mother, to a large, roomy coop. A goose's appetite for green things asserts itself from the start and the goslings' first food may be a feed of grass, fed on sod; with it should be given a small amount of moistened cornmeal or oatmeal. Or the first meal may consist of chopped egg and bread crumbs, with chopped weeds or greens of some sort added. A bit of sand and charcoal also improves the ration. Food of this sort should be given regularly three times a day for a few days. They should then be strong enough to take some grain. A ration made up of equal parts, by measure, of bran, middlings, steamed cut clover and cooked vegetables is recommended for this period, although ground corn, oats or barley may be substituted for the bran and middlings. There should be no lack of green food. Nearly any kind of vegetable, weed or grass chopped up fine will supply their wants in this direction.

Goslings are often able to take care of themselves after the first five or six days or a week. They are frequently separated from the mother at this age and allowed to roam. However, they need protection at night for a much longer time and they should receive food regularly if you wish to keep them growing rapidly. They soon learn to forage, but they will not be able to get sufficient food in this way until after harvest. At the age of 10 to 12 weeks they should be well enough developed to go to the fattening pen.

Josh Billings says: "If a man hain't got a well balanced head, I like to see him part his hair in the middle." He also says: "Love is sed to be blind, but I know lots ov phelows in love who can see twice as much in their sweethearts as I can."

OXFORD SHEEP

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



John Coullins & Sons,
Harrison, Ont.

OXFORDS AT BRANT FARM



Choice ewe lambs and ewes of all ages. Prices to suit times. Orders booked any time for show stuff for 1902. Fitting a specialty. Burford Station T. Graph & Phone
J. H. JULL & SONS,
Mt. Vernon, Ont.

C. J. DANIELS
196 River St., Toronto

Is the place to purchase Poultry Supplies.
Send your name and address on a post card for catalogue which will tell you all about it.

Toronto Incubators



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

T. A. WILLET,

514, Dundas Street, Toronto

Cramping Machines



Pattering Coops, Incubators and Brooders. All kinds of Poultry Supplies. CATALOGUE FREE.

A. J. Morgan, Mfr., London.

"VIGILANT" NEST

SLIDING—ADJUSTABLE (Patented Can. & U.S.)

The only nest in the World which positively prevents hens from eating their eggs. Simple—Effective—Durable. No springs—Eggs cannot break. The inclined nest gathers them safely in lower section. Prevents fleas, or parasites, etc. Everlasting, never failing, comfortable. Thousands now in use. Ask your dealer for it or write to E. F. Morgan, Inventor, Mfr., 13 Antoine St., St. Hyacinthe, Que. Price 45c. each. AGENTS WANTED.



SHOEMAKER'S BOOK OF POULTRY

And Family Almanac for 1902. 160 pages 120 engravings; the finest work of its kind ever published. Gives recipes for making condition powders; remedies for all diseases of fowls; plans and diagrams for building poultry houses; tells you how to raise chickens profitably; gives description with illustrations of 65 various varieties of pure bred fowls; also incubators and brooders and poultry supplies at lowest prices. It is an encyclopaedia of chicken information worth many times its cost to anyone interested in poultry. You positively cannot afford to be without it. Sent postpaid, on receipt of price, 15 cents. Address,
G. G. Shoemaker, Box 83, Freeport, Ill.



THE CYPHERS INCUBATOR

ON SALE BY RESPONSIBLE CANADIAN AGENTS.

Used with uniform success on twenty-six Government Experiment Stations in the U. S., Canada, Australia and New Zealand; also by America's leading poultrymen and many thousands of persons in every walk of life. Guaranteed to give satisfaction or price refunded. The original and only genuine non-moisture incubator, fully covered by patent.
WRITE FOR NAME OF CANADIAN AGENT NEAREST YOU.
Agents carry incubators to stock, duty paid, and can save you money. Complete 100-page catalogue for 1902, freely illustrated, free if you mention this paper. Ask for Book No. 111. Address
Cyphers Incubator Co., Buffalo, N. Y., Chicago, Ill., Boston, Mass., New York, N. Y.

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.

Cattle.

About one mile north of the pretty town of Strathroy and about twenty miles west of the city of London lies the Maple Bank stock farm, the property of T. Douglas & Sons. About 100 head of imported and home bred Shorthorn cattle were found comfortably stabled and looking in fine condition. The head of the herd, Diamond Jubilee (Imp.)—28861—is in grand form and despite his great weight (about 2600 lbs.) is as sprightly as ever and retains to a wonderful degree his youthful appearance and symmetry. His usefulness as a sire is clearly demonstrated by the fact of his winning first prize for bull and four of his get at the Western Fair, London, in 1901; besides the first prize yearling heifer, and champion female, 2nd prize bull calf, 2nd prize young herd and 2nd prize herd of calves were all of his get. He was sired by Sigmund 2nd, dam Jenny Lind, by Patient, and is closely related to the great William of Orange. As assistant stock bull the firm have recently purchased Double Gold—37852—from the Messrs. Cargill & Son. He is a fine smooth well fleshed youngster, (13 months,) bred in the purple, being sired by the well-known Golden Drop Victor (imp.)—32065—dam Golden Strawberry (imp.)—34134—

The large number of cows in this herd represent in their breeding some of the best blood in Great Britain and are an exceptionally fine lot, being as a rule large milkers and possessed of great depth and breadth of body, with that straight level back that gives the finishing touch to the ideal Shorthorn. A number of the older matrons are sired by (imp.) Scottish Victor—2739—(imp.) Warner—2720—and Young Abbottsburn's Heir—15947—while a goodly number of the younger cows and some heifers are by Valkyrie—21806—sired by the well known Abbottsford dam Vanity, by Village Hero. Hence a full brother to Valient Champion of America 1901, and sold at auction at the close of the year for the handsome sum of \$1,675.00. A few choice heifers are kept in show-yard condition. Bessie's Gem, (three years old) by Valkyrie dam Bessie Dorn—21628—is a wealthy fleshed rich roan heifer that has done well since winning at London, last fall. The red two year-old heifer Lulu Dorn, is of similar stamp and of the same breeding. (Imp.) Graceful 8th and Verbena Blossom, (although only 25 months old) look like making strong opposition for her. Some of the yearlings also look very promising at present. The calf crop so far is

good, being lusty, strong, robust fellows, with abundance of fine mossy hair. The only thing their owners lament is that there are only three heifers in the last twenty calves.

Although sales have been numerous the last few months there are still seven or eight good useful bulls of serviceable age, one very promising bull is a rich roan 15 months old with good Shorthorn character that looks like making both a good show and stock bull. Valkyrie Stamp, a red 2 year-old, (the last calf by Valkyrie) has developed into a grand bull and if he goes into good hands he will no doubt be heard from next fall. Intending purchasers should watch their offering in this journal and write the firm for prices.

Messrs. John Cousins & Sons, Harriston, report the following sales of cattle: One bull to John Thomson, Harrison; one bull to John Little, Henfryn, and one bull and two heifers to John Little, Okoloks, Alberta.

Sheep.

Among the sheep sales made recently by John Cousins & Sons, Harriston, are: One ram to Mr. Muher, Shipley; one ram to W. Kean, Harriston; one ram to G. Vine, Kirksville, one shearing ewe to A. Stewart, Living Springs, and two ewe lambs to A. Stevenson, Attwood.

W. D. Monkman, Bond Head, Ont., writes: Our stock came through the winter in good shape, the Shropshire lambs coming now are extra big and strong.

The flocks of Silver and White Wyandottes are fine and thrifty, will have a good many to dispose of in the fall.

Wine.

Messrs. Cousins & Sons also report, one sow to Geo. Morrell, Harriston; one sow to W. Jewell, Harriston; one sow to J. Taylor, Clifford; one sow to J. McMillan, Palmerston; one boar to R. Wells, Harriston; one boar to J. McMillan, Palmerston; one boar to J. Hallman, Fordwich, and one boar to R. Gamble, Newbridge.

Poultry.

From the yards on Lady Henry Bentick's Underley Estate, at Kirkyb Lonsdale, England, have just arrived 6 beautiful pullets and 2 splendid cockerels of the Buff Orpington breed. This consignment of choice birds now forms part of the flock on the farm of J. W. Clark, Esq., Onondaga, Ont. They were secured for him by J. H. Grisdale, Agriculturist, Experimental Farm, Ottawa, who during 1901 visited a number of flocks of this breed in the North of England, where they flourish. He considered the Underley flock the best of those visited.

Gombault's Caustic Balsam

The Great French
Veterinary Remedy.



A Safe, Speedy and Positive cure
for ailments of

HORSES and CATTLE.

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

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 COMPANY, Cleveland, Ohio.

OR 21 FRONT STREET WEST, TORONTO, ONT.

FISTULA AND POLL EVIL

Fleming's Fistula and Poll Evil Cure is a new, scientific & certain remedy.
NO COST IF IT FAILS.
Write today for important circular No. 555
FLEMING BROS., Chemists,
36 Front St., West, Toronto, Ont.

Cured
in 15 to
30 Days



ROCK SALT for horses and cattle, in ton and car lots. TORONTO SALT WORKS, Toronto

WOOD ENGRAVING,
PHOTO ENGRAVING,
HALF-TONES
168 BAY ST.
J.L. JONES ENG. CO.
TORONTO
please mention THE FARMING
WORLD.

Spooner's "PHENYLE"
Powder
"Phenyle"
GERMICIDE
DISINFECTANT..

KILLS CHICKEN LICE
and Lice on Horses and Cattle, and Ticks on Sheep. Keeps them Healthy, Easily applied; no dip required.

60lb. boxes, 1lb. packages, 25c. lb.
70lb. pails, 15c. lb.
400lb. barrels, 10c. b

If your Druggist does not sell it, send direct to
ALONZO W. SPOONER,
Laboratory, PORT HOPE, Ont
ASK HIM CURE and prevent hog cholera. 72

Market Review and Forecast

Office of The Farming World, Confederation Life Bldg.

Toronto, Mich. 31st, 1902.

The fine spring weather of the past week has been exceptionally favorable for business. The prospects for the spring and summer trade are very encouraging. In some cases wholesale houses have had an increase of 10 per cent. in orders for spring delivery. Money is in good demand with transactions on call at 4½ to 5 per cent. most of the loans by banks being at 5 per cent. Commercial paper is discounted at 6½ to 7 per cent.

Wheat.

The wheat situation shows little improvement. Though there has been more cable buying, this has been due to the lower prices on this side. The condition of the growing crop continues favorable and at the moment there is little prospect of any big advance in prices. Of course it is a long time yet till harvest and such injury may come to the growing crop that may cause prices to jump up lively. Holders however, should not count much on this. The Price Current of last week says:

"The wheat market was weak nearly all the past week, largely under heavy liquidation. Lower prices led to increased foreign buying, the price having reached an export basis, but steadier markets here and easy foreign markets soon checked this demand. Besides the heavy liquidation the favorable weather on the growing crop helped to depress prices. The cash domestic demand has been fairly good taking the week altogether. The weakness was mostly on winter wheat, thus steadily reducing the premium which it has been commanding over spring wheat. The market closed with a somewhat firmer feeling, with a moderate gain over the low point on Monday."

Locally the market is quiet, millers being inclined to hold off buying for lower prices. Red and white are quoted here at 71c to 72c and goose at 66c, north and west and spring at 72c to 72½c east. On Toronto farmers' market red and white bring 70c to 76½c, goose 66c and spring 67c per bushel.

Oats and Barley.

The oat market rules about steady. Prices here range from 41c to 42½c for No. 2 white at outside points. On the farmers' market oats bring 45c to 46c per bushel.

Barley is dull and rather easier at 48c to 54c as to quality and point of shipment. On Toronto farmers' market malt barley brings 54c to 60½c and feed barley 53c to 54c per bushel.

No substitute for "The D. & L." Menhöl Plaster, although some unscrupulous dealers may say there is. Recommended by doctors, by hospitals, by the clergy, by everybody, for stiffness, pleurisy, etc. Made by Davis & Lawrence Co., Limited.

4 PER CENT.
DEBENTURES

Debentures for \$100 and upwards are issued for terms of one, two, three, four or five years. Coupons are attached for interest from the date on which the money is received at four per cent. per annum, payable half yearly.

INVESTIGATION SOLICITED

The CANADA PERMANENT and WESTERN CANADA MORTGAGE CORPORATION

Head Office, Toronto Street, TORONTO

Peas and Corn

Peas are easier and lower here at about 80c at outside points. On the farmers' market they bring 84c per bushel.

American corn is easier. Canadian yellow is selling at 60½c to 61c in car lots Toronto.

Bran and Shorts

Ontario bran in bulk has been selling at Montreal at \$18.00 to \$18.50 and shorts at \$21.50 to \$22.00 in car lots. City mills here sell bran at \$18.00 and shorts at \$20.00 in car lots f.o.b. Toronto.

Potatoes and Beans.

Potatoes are still on the down grade. Best car lots are quoted at Montreal at 65c to 68c per bag. Cars on track are quoted here at 55c to 57c. On Toronto farmers' market potatoes bring 70c to 75c per bag.

Beans continue draggy. A car lot is reported offered at \$1.05 per bushel f.o.b. at Chatham during the week and refused.

Hay and Straw.

The hay trade rules about steady, though east where the government has been buying hay for South Africa the market is easier owing to the government having received orders not to ship any hay during April. Otherwise the market is steady enough and Canadian hay sells readily in the English market. Montreal quotations are No. 1 timothy \$9.50 to \$10.00, No. 2 \$8.50 to \$9.00 and clover mixture \$7.50 to \$8.00 in car lots on track. Baled straw is quoted at \$5.50 f.o.b. at country points east. Car lots of No. 1 timothy sell here at \$10.25 and baled straw at \$5.75. On Toronto farmers' market timo-

thy brings \$11.00 to \$13.00, clover \$7.00 to \$9.00 and sheaf straw \$7.00 to \$8.00 per ton.

Eggs and Poultry.

Owing to large receipts the egg market has taken a decided drop. At Montreal prices dropped 4½c during the week to 11½c to 12c per dozen for new laid in large lots. Case lots of new laid are quoted here at 12½c. On Toronto farmers' market new laid bring 12½c to 13c per dozen.

The dressed poultry trade is over, excepting for the hotel and restaurant trade which is limited. At Montreal fat chickens bring 12c to 13c, geese 7c to 8c, and ducks 10c to 11c per lb. On Toronto farmers' market live and dressed chickens bring 70c to \$1.00 and ducks \$1.00 to \$1.25 per pair, and geese 8c to 9c, and turkeys 15c to 18c per lb.

Live poultry like dressed are scarce. The Canadian Produce Co., Ltd., 36 and 38 Esplanade St. East Toronto, will pay until further notice for live chickens, 8c, for ducks and turkeys 11c, for geese 6c per lb. All must be young birds. For hens 5c per lb. Dressed poultry, dry picked (except hens), ½c lb. higher. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c per 100 lbs. of chickens. No thin birds will be taken.

Seeds.

The seed market continues steady under a good demand. Canadian red clover is selling particularly well in England. Montreal selling prices are alsike \$14.00 to \$17.00, red clover \$9.00 to \$10.50 and ti-

Trees! Trees!! Trees!!!

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

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

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

WINONA NURSERY CO., Winona, Ont.



"What's in a Name."

On another page of this issue appears a very unique design calling attention to a line of harvesting machines in which the O.K. stands out prominently, emphasizing the fact that the machines advertised are O.K. in name as well as fame all over the world.

Readers of The Farming World should write for "The World-Centre," a beautiful and interesting book which is mailed free to all mentioning the paper.

The Evans Seed Co., Hamilton's reliable seed house whose advertisement appears on the first page, announce some very special lines of seeds and roots. Send name on post-card for their beautiful catalogue.

Wm. Rennie, of Toronto, has a special advertisement for their noted Waverley Oats and are offering \$100.00 cash in prizes. See their advertisement for conditions on back cover. Farmers' sons especially should take advantage of this offer and send in their answers.

Nothing polishes window-glass like newspaper. After washing and drying them, rub with newspaper, and a high polish will be the result; looking glasses, glass globes, lamp chimneys and the glasses of spectacles all may be cleaned in the same manner. All this virtue lies in printer's ink.

**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

**ORIGINS
DUCKS
GEESE
TURKEYS**

WANTED

DRESSED OR LIVE POULTRY RECEIVED—We will forward empty crates for live poultry and pay charges on all out-going crates. Prompt remittance by Express Order will be made on arrival of shipments less express charges if not prepaid. We do not purchase on commission, but pay in full for all birds on arrival.

Toronto Poultry and Garden Produce Co., Limited

470 Yonge Street - TORONTO

"EAGLE" in 100's and 200's. "VICTORIA"

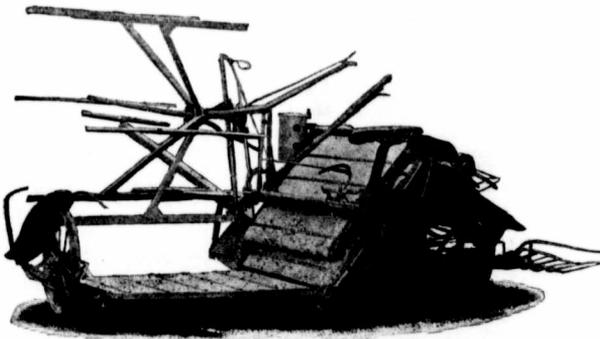
EDDY'S PARLOR MATCHES

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

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

**THE NOXON
OPEN-BACK BINDER**

Is acknowledged by all Practical Farmers to be the best.



Some Special Features :

Built of Steel Throughout
Open Back
Removable Dividers
Telescopic Packer Shaft

Three Packers
Weight Trip
The Lightest Made
A Pair of Ponies Can Handle It

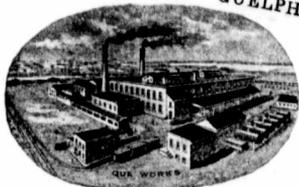
Runs Without Noise
Always Reliable
No Neckweight
Handles Tangled Grain Perfectly

Every Purchaser Gives a Testimonial

THE NOXON CO., Limited, INGERSOLL, ONT.

FERTILIZE

Reading Room
Ontario Agri College
GUELPH Ont

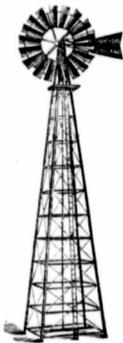


FULLY 50% EXTRA WHEAT
W. A. Freeman Co., Hamilton.
Dear Sirs,—It affords me great pleasure to state that after using your "Sure Growth" Fertilizer for the past three years, I can say I find it everything you recommend. I used it on roots, wheat and corn. On wheat I consider that I had fully fifty per cent. extra. I was very careful in sowing, and counted the sheaves. For equal distance, I had 18 sheaves without manure and from "Sure Growth" I find 30. Roots and corn about the same proportion. The Clover and Timothy came on splendidly. While I am a strong believer in hayward manure, at the same time I can confidently recommend your Fertilizer to any person requiring concentrated manure as one they will find giving the very best results.

Yours truly,
(Signed) ROBERT KERR,
Councillor, Ward 2, North Oxford.

Prices, Catalogue and Information on application. A good thorough farmer wanted in every section to represent our High Grade FERTILIZERS in any territory not already taken up.

The W. A. Freeman Co., Limited
Hamilton, Ontario



Brantford Galvanized STEEL WIND MILLS

With Roller and Ball Bearings for PUMPING or POWER

Ideal Gas and Gasoline Engines, Grain Grinders, Wood and Iron Pumps, Bee-Keepers' Supplies, etc.

Write us.

Gould, Shapley & Muir Co., Limited,
BRANTFORD, ONT.



THE **NATIONAL CREAM SEPARATOR**

The Most Simple in Construction.
A Perfect Skimmer.
Easy to Clean.
Light Running and Durable.
Every Machine Guaranteed to do Good Work.
Give the NATIONAL a Trial.

National No. 1, capacity 380 to 350 lbs. per hour.
National No. 2 A, capacity 450 to 500 lbs. per hour.

GENERAL AGENCIES

JOS. A. MERRICK, Winnipeg, for Manitoba and N.-W.T.
CREAMERY SUPPLY CO., Guelph, for South-western Ontario
T. C. ROGERS CO., Guelph, for Ontario North and East.

MANUFACTURED BY

THE RAYMOND MFG. CO. OF GUELPH, - Limited
GUELPH, ONTARIO

A FULL GARDEN

YOUR OWN CHOICE BY MAIL POSTPAID.

10 PACKETS 25c SEEDS

VEGETABLES.

ORDER BY NUMBER.

1. BEANS, Golden Wax.
2. BEET, Edgewise, round.
3. BEET, Savoyed, flat round.
4. BEET, Long Smooth Head.
5. CABBAGE, Winningdale.
6. CABBAGE, Fottler's Brandywine.
7. CARROT, Half-Long Danvers Scarlet.
8. CARROT, Gem or Orheart.
9. CAULIFLOWER, Early Paris.
10. CELERY, Golden Self-Blanching.
11. CORN, Early Minnesota.
12. CORN, Rowell's Evergreen.
13. CUCUMBER, Chicago Pickling.
14. CUCUMBER, Long Green.
15. CUCUMBER, White Spine.
16. HERBS, Sage.
17. HERBS, Savory.
18. HERBS, Marjoram.
19. LETTUCE, Nonpareil.
20. LETTUCE, Denver Market.
21. MUSH MELON, Early Hackensack.
22. WATER MELON, Early Canada.
23. ONION, Large Red Waverley.
24. ONION, Yellow Danvers.
25. ONION, Silverkin.
26. PARSLEY, Moss Curled.
27. PARSNIP, Hollow Crown.

28. PEAS, First and Best.
29. PEAS, McLean's Little Gem.
30. PEPPER, Ruby King.
31. PUMPKIN, Large Cheese.
32. RADISH, Ruby Gem.
33. RADISH, French Breakfast.
34. RADISH, Long Scarlet.
35. SALAD, Sandwich Island.
36. SQUASH, Vegetable Marrow.
37. SQUASH, Hubbard.
38. TURNIP, Red Top Globe.
39. TOMATO, Dwarf Champion.
40. TOMATO, Extra Early.

FLOWERS.

41. ALYSUM, Sweet.
42. ASTERS, Mixed.
43. BALSAM, Mixed.
44. CARNATION, Mixed.
45. CLEMATIS, Mixed.
46. EVERLASTING, (Hedychryum), Mixed.
47. MIGNONETTE, Sweet.
48. MORNING GLORY, Mixed.
49. NASTURTIUM, Tall, Mixed.
50. NASTURTIUM, Dwarf, Mixed.
51. PANSY, Mixed.
52. PRUNELLA, Mixed.
53. PINK, Dianthus, Mixed.
54. PHLOX, Drummond's Mixed.
55. SWEEP PEAR, Fine, Mixed.
56. VERBENA, Mixed.
57. WILD FLOWER, Garden, Mixed.
58. ZINNIA, Mixed.



5 Giant Gladiolus Bulbs, 50c. All Different.

FREE WITH EVERY ORDER—1 Package New Midgott Phlox Drummond's—Forty shades and colors—(Price 20 cents).

Mention this paper.

Worth Growing: SPELTZ

Best described as a combination of Rye, Wheat and Barley. BEATS SPRING WHEAT IN YIELD of grain at Ontario Agricultural College in 1901. Try it. Lb. 20c.; 3 lbs. 50c. postpaid. Peck (10 lbs.) 50c.; 1/2 bush. (20 lbs.) 80c.; bushel (40 lbs.) \$1.40.

Giant Sugar Mangel.

THE NEW FIELD ROOT. Has feeding qualities superior to any other. For producing milk or as a flesh former. Heaviest Cropping Root grown. Lb. 35c.; 3 lbs. \$1.00—Postpaid.

Waverley Oats

Famous White Oat from Europe, giving astonishing returns grown in Canada. Positively the heaviest weight and finest in appearance of any Oat before the public. Thin in the hull, with bright amber colored straw standing upright in almost all kinds of weather. Our crops have satisfied us that it is wonderfully adapted to both soil and climate of this country. Give it a trial. Lb. 30c.; 3 lbs. 75c., postpaid. Peck 60c.; bushel \$1.60; 5 bushels \$7.50. **PRICES**—by peck, half bushel and bushel—do not include Freight or Express Charges nor Bags. **BAGS**—Cotton, each 18c.; Linen, each, 10c.

ADDRESS ALL ORDERS... **WM. RENNIE, - TORONTO.** REMIT CASH WITH ORDER.