

# THE FARMING WORLD

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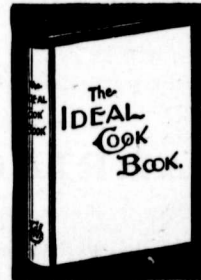
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# The Farming World

For Farmers and Stockmen

Vol. XX.

JUNE 17th, 1902.

No. 23

## Try Something New.

**T**HE charge has been made that farmers are too prone to get into a rut in their way of doing things. Is this charge true? Do farmers do the same thing in the same way year after year from force of habit without any thought of a better and more economical way of doing it? We are afraid that in a good many instances the charge is true. The conditions and environment of the farm are such that one is apt to get into a rut before he knows it and to continue in that rut in the vain belief that his method is the very best that could be devised. A good way to force one's self out of a rut is to try a small experiment or a new way of doing things each year. If for instance you have got into a rut in your way of feeding, try one or two animals on a new plan and watch the result. Some new kind of grain or some new method of preparing the soil, if tried even in a small way, will tend to get one out of himself and to broaden his ideas and methods. Of course an old and oft-repeated way of doing things if it produces the best possible results should not be discarded. But habit is so powerful one often does things in the same way over and over again, even when one knows that it is not the best way. This habit should be guarded against by every farmer as it will impede progress and prevent him from realizing the most out of his work and his farm. By planning to try some one new thing every year, even if it be on ever so small a scale, will help to keep him out of the ruts that are too frequently followed upon many a farm.

## Early Maturity in Live Stock.

One of the striking features in live stock breeding to-day is early maturity. In nearly all classes; including horses, cattle, sheep and swine, maturity is reached at a much earlier stage than twenty-five or even fifteen years ago. The aim seems to be to cut down the time it takes to bring an animal to a condition when it may be useful for food or for some other purpose. This means a saving in the cost of production and does not interfere with quality; in fact quality in most cases is improved.

All this is indicative of progress—progress in breeding, progress in feeding and in caring for the young animals properly. To secure early maturity the farmer must give at-

tention to breeding. It cannot be got by slipshod or careless methods in breeding. The scrub animal will never fill the bill. The early matured animal is only to be found among the pure bred or high grade animals, and even if the breeding has been carefully attended to and the early care and feeding of the animal are neglected, the benefits to be derived from early maturity cannot be secured. To secure, then, this early maturity so essential to the greatest success in live stock husbandry to-day, these two things—breeding and feeding must receive attention.

To many, the part which early maturity plays in horse breeding may not be so apparent as in other lines. It, however, plays a most important part, especially in draft horse breeding. The aim to-day with this class of horses is to secure maturity and large size as quickly as possible. Of course these must not be secured at the expense of quality. But they need not be, and if proper methods are followed in breeding, etc., there need be no sacrifice of quality. In coach horse breeding early maturity is also an important factor. One of the objections to breeding horses especially for remounts, is that the army authorities will not buy the horses until they are at least five or six years old. To breed horses and keep them a year or two longer than the marketable age for most classes and sell them at the prices now being paid for remounts is not the most profitable line of horse breeding to follow. This is the chief objection which the British farmer has to the breeding of horses for army purposes. Five and often six years is too long to wait for returns.

But it is in the breeding and raising of beef cattle that early maturity perhaps plays the most important part. The first essential in profitable cattle breeding to-day is to have the animal grow to a marketable condition as soon as possible. It has been the early maturity of their beef cattle who today market their steers at from one to two years, having in that time attained to the size of three or four-year-olds of the scrub type, that has made the farmers of the Western States so successful as producers of the finest quality of beef. And the Canadian farmer must follow in the same line if he wishes for the same success. Neither the export nor the butchers trade wants the big over-fat and over-age steer. Besides, there

is no profit to the farmer in waiting four or five years for returns from his beef product. Good breeding is essential in securing early maturity and so likewise is good feeding. A calf, no matter how well bred, will not mature early if half starved and neglected in its earlier days. It should be made to grow and lorge ahead right from the beginning. By these two, proper breeding and feeding, the farmer can to-day produce the finest quality of beef at the least possible cost. One could afford to sell an animal matured at two years for almost a third less and make a profit than the animal that takes three or four years to mature. It must be noted, however, that this result cannot be obtained but by a thorough understanding of the laws of breeding and feeding.

There is also a growing tendency to early maturity in raising dairy cattle. The dairy animal like the beef animal is brought to maturity earlier than fifteen or twenty years ago. In the early days the dairy cow did not begin work till three years old at least and sometimes later. To-day in many of the high grade or pure bred dairy herds the dairy cow begins to give milk a year at least earlier than this period and so science and intelligence are being brought to bear upon all these problems and quicker returns and larger profits are the result.

In sheep rearing early maturity should play and is playing a most important part, especially for mutton purposes. In fact, it is only by developing this to the largest extent that the greatest profits can be realized from sheep-rearing to-day. This may be seen in the market for early lambs. In the United States the greatest profits that many sheep raisers have is in raising winter lambs. These bring enormously high prices and if proper accommodation is provided, can be reared without any great difficulty. And a breed or class of sheep that will mature early is best adapted for the purpose. In Canada we have not the market for this early high priced stuff that the American farmer has. But there is a demand for it which might be increased if more attention were given to breeding and raising lambs for it. Aside from this, profitable mutton-making in this or any other country can only be most successfully carried on by attention to early maturity.

There is only left the hog to deal with. What relation does early maturity bear to it? A most important relation, we think. Ex-

cepting in the case of sows or boars, we do not meet with anything over nine months or a year old on the hog market to-day. Perhaps the average time which it takes to mature the bacon hog is from seven to eight months. A few years ago this early maturity business in connection with the bacon hog was, to some extent, overdone by farmers aiming to get their hogs to the desired weight of from 160 to 200 pounds each at about six months old, resulting in a too fat and too soft fleshed animal. But this tendency is not so prevalent to-day, and the best raisers of bacon hogs aim to develop more bone and to give more exercise to

the growing animal than is possible in a life of six months. But seven or eight months is not a very long time in which to develop so important a revenue-producer as the Canadian bacon hog.

Early maturity is then a most important principle in modern live stock breeding. It makes for larger profits, quicker returns and better quality. It can best be secured by using pure bred animals that have been especially bred for this purpose. Good breeding and good feeding must go hand in hand, and the farmer should make himself familiar with the best methods of combining these two in the early matured animal.

the rapidity of nature's changes in this country.

Looking back over the past years the fact that every year seems to be "unusual" and to present abnormal conditions is the only rule that can be laid down for Manitoba weather. But whether the spring be unusually late or unusually early, wet or dry, whether the snowfall be more than ordinary, or the ground be bare from November to May, or whatever other abnormal features the weather may present, the same rapid growth intervenes to counteract unfavorable conditions and to bring the crops to maturity at the proper season. This year, so excessive was the rainfall during seeding, many farmers sowed wheat when the ground was so sticky that the seeder worked only with the greatest difficulty. The land was in the worst possible condition for seeding, yet to-day the grain stands as well as though sown under the most favorable conditions.

## Our Western Letter

Halfbreed Land Scrip—Prof. Grisdale Returns—Remarkable Growth of Crops—New Elevators at Fort William.

Winnipeg, June 9, 1902.

The closing scenes of the drama of "the transfer" are now being enacted at Winnipeg. The rights of the halfbreed inhabitants of the Hudson Bay Territories will, before the close of the present month, be finally extinguished and only then will the transfer of those territories be a completed contract. Some years ago, in the 70's the halfbreeds of Manitoba received their "scrip" entitling each one born in the Province up to 1870 to 160 or 240 acres of land, the heads of families receiving the former, and children the latter. During the past summer a commissioner was sent out to the Northwest Territories to issue "scrip" to each halfbreed born there up to and including 1885, the year of the second halfbreed rebellion. The commission is now sitting at Winnipeg to decide disputed claims and to adjudicate claims which were overlooked in the first distribution as well as those of persons now residing in Manitoba but born in the Territories in 1885 or earlier.

The peculiarity of this arrangement is that it seems to put a premium on rebellion. The rebels of 1870 are entitled to scrip, but those halfbreeds born in Manitoba since that rebellion are not. On the other hand the Territorial halfbreeds born up to 1885, the year of the second rebellion, are entitled to scrip. This discrimination has caused considerable ill feeling among these people in Manitoba and not a little vehement oratory has been wasted in an attempt to secure what they consider their rights to scrip for all their children born up to 1885.

Not one in twenty of the halfbreeds settles on the land to which their scrip entitle them. Their claims are sold long before they are adjudicated, and, the scrip not being transferable, the speculators sometimes experience considerable difficulty in securing the lands. The allottee must locate the land and then transfer it to the party to

whom he sells his scrip. Moreover, not more than fifteen per cent of the claims are allowed, and as the allottees will not sell for less than \$650, the way of the land grabber is beset with difficulty, which the earlier issues of scrip were made much of it was sold for a few dollars. Land was cheaper then than now and whiskey was scarcer. Consequently that medium of exchange figured largely in the sale of scrip.

Claimants from all parts of the country are in Winnipeg for the purpose of presenting their cases to the commission. From Norway House and Oxford House in the Hudson's Bay Territory they have come hundreds of miles to secure their scrip, bringing family Bibles and all manner of documentary evidence. The claims now presented are mostly those of Scotch halfbreeds, old servants of the Hudson's Bay Company and their descendants.

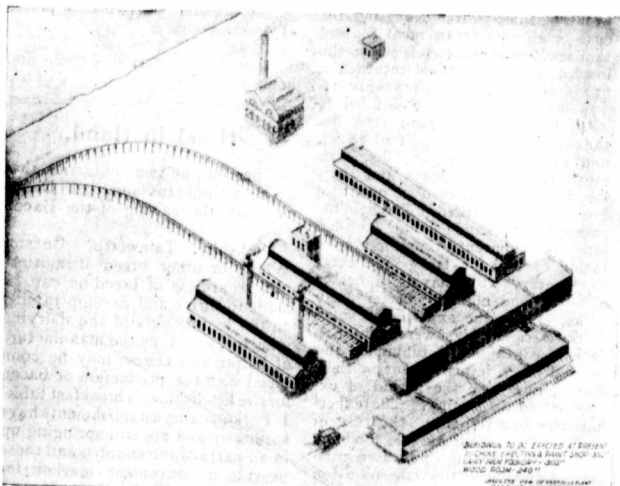
When the former issue of scrip was made the buyer did not have to go far to secure his land, and in evidence of this, it may be noted that almost all the land within twenty miles of Winnipeg is divided into farms of 240 acres, showing that they were originally halfbreed allotments. Now the buyer of scrip must go into Assiniboia or even farther west to secure his land.

Prof. Grisdale of the Central Experimental Farm passed through Winnipeg to-day on his return to the Capital. The Professor has carried back with him a more than usually enthusiastic opinion of the possibilities of this land of promise and rightly so. The cattleman who could travel for hundreds of miles across prairies covered with native grass almost knee deep, without becoming enthusiastic must be a cold blooded individual. When we recollect that little more than a month ago the prairie was brown and bare of even the faintest tint of green, and contrast its present luxuriance we can only marvel at

The outcome of the fight for the Canada Atlantic Railway has become a matter of national concern. Whether the C.P.R., MacKenzie and Mann, or an American syndicate secure control is practically immaterial, as in either case the effect on the country will be much the same. But the reported effort of the Minister of Railways to absorb the line into the Intercolonial system meets with general approval in the West. We are interested in Canada's national railway and believe that it can be made a potent factor in the development of the country, especially those portions of it which can ship their merchandise by combined lake and rail route. With the intercolonial competing with the C. P.R. and G.T.C. on grain freights in the east, and the Canadian Northern, under Government control, keeping rates down in the west, transportation to and from ocean ports will rapidly cheapen. Hon. Mr. Blair may be assured of the support of Western Canada in any effort he may make in the direction noted.

The new elevator to be built in Port Arthur for the C.N.R. will be entirely for storage purposes and will have a capacity of 1,700,000 bushels, thus giving the C.N.R. a storage capacity of 3,000,000 bushels at this terminus. The new house will be built of tile and steel on a pile and cement foundation, and will be fireproof. It will consist of sixty-four tanks each twenty-one feet in diameter and seventy feet high. It is to be an annex to the present elevator and will be operated by the same machinery. Four conveying belts will transfer the wheat from the present elevator to the tanks. These conveyors will have a capacity of 50,000 bushels of grain an hour and the same amount can be taken out, enabling that quantity to be received or shipped per hour.





The above cut represents the proposed new factory, which is being built by the Deering Harvester Company at Hamilton, Ont., at which point they have decided to locate their Canadian Branch, owing to the central location and shipping facilities. There is no question that in time this will be one of the leading industries in Canada. The first proposition made by Hamilton was to give the Deering Harvester Co. a bonus of \$50,000, which by-law was defeated. The proposition that they have now made is, as we understand it, considerably better than the bonus would have been should it have carried. This new factory will form an important addition to Canada's manufacturing industries.

## Commutated Statute Labor a Success

Last week we referred to the progress that is being made in commuting statute labor in Ontario. The Township of Pelham in the Niagara district has perhaps had better success with the commutation system than any other municipality in the Province. The by-law of this township commuting statute labor has been used largely as a model in framing the by-laws of other municipalities. This by-law is published in the last annual report of the Commissioner of Highways and a copy should be secured by every councillor.

In a letter received last week from Mr. J. C. Crow, clerk of Pelham Township, he states that the commutation plan is giving good satisfaction. There have been, of course, as with every new system, some little hitches but generally of minor importance in so far as the practical working of the act is concerned. A mistake was made in fixing in the by-law the remuneration of the road commissioners, of which there are two. Their remuneration was fixed at 15c an hour. In one case, the second year, this had to be increased to 17½c an

hour in order to retain the services of an experienced and competent man. Mr. Crow recommends giving the commissioners more latitude in letting jobs or contracts for work. He states that the most serious failure has been in the divided authority and jurisdiction—part of the work being done by the road commissioners and part by members of the council. It would be better to place as much authority as possible with the commissioners, providing they are men who understand their business. It was to cure this very evil of divided authority that the change to commutation was made, a point that it would be well for municipalities contemplating a change to carefully observe.

A few years ago Mr. Crow compiled some very interesting figures to show the waste that occurred in performing statute labor in his own township that are well worth noting here. For the year 1896 Pelham Township had 3,281 days to be performed in actual statute labor. By taking from this the time spent by the pathmasters in warning hands; qualifying for office, etc.; the time spent by them as overseers of the work; 5 per cent. because people came to work late and quit early; 5 per cent by undoing what others had done in former years; 10 per cent for want of suitable implements, tools, etc.; and 33 1-3 per cent. because few pathmasters or people know how properly to make good permanent roads, and worse, too many look upon roadwork as an annual holiday, the total day's work accomplished was reduced to 1,243 days. As this amount referred to days of eight hours each, another 20 per cent. would have to be deducted, thus leaving only 994 days of 10 hours each. This number if paid for at a fair price of \$1.00 per day would cost \$994. If the total days levied on the township were commuted at 30c a day there would be enough cash return to pay for this work and have a cash balance to



With the Good Roads Train in Eastern Ontario.—A Road Grader Operated by a Traction Engine.

the good. This same line of reasoning would apply to the working of the statute labor system in almost every municipality in the province.

And there are other evidences of the success of the commuted labor system. The clerk of Malden Township in writing the Commissioner of Highways on the subject, says: "I beg to inform you that when statute labor was abolished our council adopted the only plan left for them, that is to raise all the money required by general township rate, and the increase in taxes is scarcely perceptible. But we find that one dollar expended by the council is equal to five days statute labor. We expend about \$2,000 a year on the improvement of our roads and bridges. Every ratepayer wanting work done to give him an outlet for surplus water from his farm puts himself in touch with the council. They have to study the wants of every ratepayer, as well as the needs of the roads and bridges, and by having control of \$2,000 or more, they are enabled to dig ditches to their proper outlet. No one is allowed to suffer by having water thrown in front of his place and left there until the next roadmaster is appointed to carry it off. Roads are gravelled by the mile, all work is done in the early part of the year, and not when farmers have leisure time. All work is sold and received by the council. We have four road machines, and scrape every rod of road in the township each spring. We employ men to cut all noxious weeds found growing on the roads, and prohibit all stock from running at large."

The clerk of Stafford Township says: "The township not being large it is not divided; we have one road commissioner. Road money is raised by special rate, and is equal to about 45c per day of statute labor. No change is contemplated except to divide the township into two divisions, but I think even this will not be done. We have a road commissioner who goes over the roads and lays out the work and gets the ploughing done; then the grader follows with four teams of horses: the man who operates the grader has full charge of the work and is also the time keeper. The leading men of the township would not go back to statute labor under any conditions. We have as yet had only a year's experience, but did more work than was ever done in two years before."

#### Tankage for Hogs.

Some attention is being given to the value of tankage as a source of protein feed for fattening hogs. The Indiana Experiment Station reports, after feeding four lots of hogs on corn meal and tankage in various proportions, corn meal alone, and corn meal, shorts and tankage, a decided advantage in feeding the protein product. The lot fed 1,982 pounds of corn meal and 197 pounds tankage returned a

profit of \$9.62½ after deducting the cost of all feed (corn meal \$1 and tankage \$1.50 per cwt.), while the lot fed corn meal alone returned a profit of only \$8½, eating only 1,779 lbs. of meal. The lot fed 1,984¼ lbs. corn meal and 378½ lbs. tankage returned a profit of \$8.82, and the lot fed 1,000¼ lbs. corn meal, 1,000½ lbs. shorts and 199½ lbs. tankage returned a profit of \$10.85½. A marked difference between the tankage-fed and corn-fed lots was apparent, those having a ration of tankage being in better shape every way, having a better appetite, and making better daily gains. After the experiment some of the corn-fed pigs were put on a ration containing tankage and showed much improvement in their daily gains over the period of exclusive corn feeding. The experimenters believe that the use of corn or corn meal as sole food for growing, fattening pigs is a mistake, and believe that the addition of food rich in protein produces better results both in health and growth.

#### Gapes and Roup.

Gapes is caused by a small worm, which attaches itself to the windpipe of the chick. It proves fatal if not taken in time. The chick keeps up a constant gaping, coughing and sneezing. Give the bird a piece of camphor gum about the size of a grain of corn and place about five drops of turpentine in a pint of drinking water. This will cure every time.

Roup is one of the worst diseases found in the poultry yard. The symptoms are heavy breathing and a wheezing noise, a badly swollen head with eyes almost, if not entirely, shut, and an offensive odor. A good remedy is to procure a goose quill or make a paper tube and blow dry sulphur down the throat. Bathe the head with turpentine, and use a drop or two of carbolic acid in the drinking water. — Gordon Walkingham in American Poultry Journal.

#### Fruit Inspection.

Mr. P. J. Carey of Cobourg has been appointed Inspector of Fruit at Toronto. He will give his attention to the small fruits and basket fruits during the season, and will also keep an eye upon some of the larger centres in western Ontario. Messrs. Dery and Scriver will perform a similar duty in Montreal. Mr. A. McNeill, Chief Inspector, Fruit Division, Department of Agriculture, throws out the suggestion that in each large centre the municipal or police authorities might detail a man to lay information under the fruit marks act, and work in co-operation with the Dominion officials. Undoubtedly it is in the interest of the community that dealers in fruit who are guilty of fraudulent conduct should be detected and punished.

"Me brudder wuz at two places at de same time."

"Is dat so?"

"Yes; he was over in France and home-sick."

#### Hand in Hand.

There are no two industries that go better hand in hand than Dairying and the raising of the Bacon Hog.

Yorkshire, Tamworth, Chester White or other breed it matters not, regardless of breed he can be made to thrive and develop rapidly on the by-products of the dairying industry, and thus the manufacture of butter and cheese may be combined with the production of bacon for the Englishman's breakfast table.

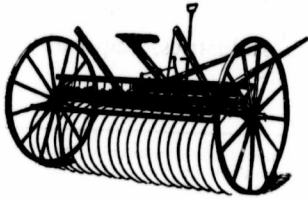
Pork-packing establishments have sprung up and are still springing up in all parts of the country and these provide a convenient market for this product of the by-product of the dairy. And as the factory patron learns to fully utilize the whey, buttermilk and skim milk in such a way as to secure a healthy, rapid growth in the animals he is feeding, the pork factories will increase in number and the market will be extended.

Skim milk and buttermilk contain the substances that are necessary for rapid growth, and even the much-despised whey has very valuable properties, but they all lack those aromatic qualities that are so necessary in promoting thorough assimilation.

It has been found by actual tests that Herbageum supplies these necessary qualities, and in such a natural manner as to prevent all scouring, constipation, weak legs, weak back and other ills that arise from indigestion.

The Ingersoll Pork Packing Co., of Ingersoll, Ont., after testing the matter, reported as follows: "We have used Herbageum, and we have found that it quickly puts unhealthy hogs in a thriving condition. It seems to cleanse them from worms and strengthens their backs and legs, and we have found them to fatten much quicker by its use. It pays, we believe, to feed it to little pigs regularly, as well as when you are preparing them for market. We also believe it a good thing to feed to sows while suckling their pigs." Mr. Alfred Barrette, of St. Urbain, Que., gives his opinion of results obtained along this line as follows: "Herbageum increases the value of whey for young pigs and keeps them always with a good appetite and in fine general condition. Besides, when fed Herbageum, they mature earlier, cost less to fatten and produce better meat which brings a higher price."

The Beaver Mfg. Co. of Galt are the sole manufacturers of Herbageum, and claim that in the preparation of this aromatic nature's lines are closely followed.



The Sulky Rake.

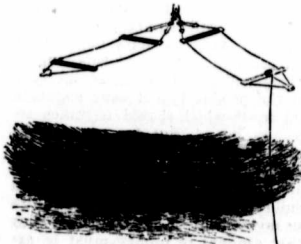
There is no work on the farm with which the Canadian farmer is more familiar than with cutting and curing hay, and especially timothy hay. Timothy has been the standby of our farmers for years as a hay crop and there are no signs to-day that its popularity is lessening. When properly cured it makes the finest quality of stock food and now that a large market has developed in Great Britain for this quality of Canadian hay, farmers should give more attention to having it put up in the best possible condition.

Haying to-day is not the laborious process it used to be. What with sulky rakes, side delivery rakes, hay tedders, hay loaders, hay stackers and hay forks, the work of cutting and curing



Hay Loader and Side Delivery Rake.

the hay crop has been reduced to a science. With these appliances, no more pitching onto the load in the field or elevating a few hundred weight of hay by pure muscle to the peak of the driving house or hay shed, is necessary. The country youth has to find some other way to develop his muscle. We present herewith a few illustrations of some of these more modern hay-making appliances which will be found interesting. They are not expensive, and with reasonable care should last a generation at least. Every farm where hay-making is largely carried on should be provided with them.



The Hay Sling.

## Pointers for Hay Makers

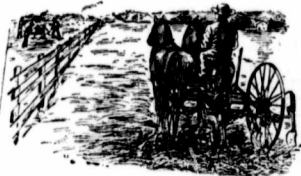
The curing of timothy hay is as a rule not so difficult as curing clover. There is not much of a definite character that can be written about it. The early cutting is perhaps preferable. Stock, especially dairy cattle and sheep will relish it better. For horses, however, and these consume the bulk of our timothy hay fed in this country, later cutting is perhaps preferable, as there will be more nutriment in the crop. The timothy should be cut when the plant has the largest amount of nutrients and these are distributed as largely as possible throughout the plant. The cutting should not be delayed too long, however, and it would be better to err on the side of early cutting than have the plant reach a stage when the stems are tough and stringy and the seeds shatter from the heads. If there is a large area to be gone over, cutting should begin early so that all will be cut before it gets too ripe. This plan would enable one to utilize the early cutting for the cows and sheep and the later cutting for horse and beef cattle feeding.

Aside from the nutrients in hay the essentials to secure are palatability and aroma. It is these two qualities that make timothy hay valuable, and if the crop has been secured in a bright green condition it will be a most valuable one. To preserve the aroma in hay it should not remain scattered over the mea-



The Hay Stacker.

dow at night. In the morning when the sun dissipates the dew from the drying grass a large part of the aroma is carried away. A rain will have the same effect. To overcome this, grass cut in the morning should be put in cocks or windrows the same day. If the crop is heavy the hay tedder can be used to advantage in curing the crop quickly. When there is favorable weather and the crop is not a large one, timothy hay may be sufficiently dry the day it is cut to be taken to the barn. But it is not necessary to particularize on these points. By an understanding of the principles which govern successful hay-making, every farmer will know how to adapt his conditions so as to secure the crop in the best condition. Color, aroma and palatability are essential in all hay-making.



The Hay Tedder.

## Should the Farmer Advertise

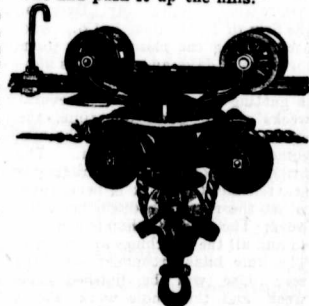
The following piece of sensible advice is given by the National Stockman and Farmer on the subject of advertising:

"Undoubtedly the farmer is entirely too modest in setting forth the merits of the wares he has for sale. The miller prints his brand, label or advertisement in flaming letters over every package of flour that goes out of his mill. Every business man advertises with posters on fences, rocks, bridges, everywhere, all the time. In the newspaper he uses pages to try to convince the people that his wares are the best or the cheapest or in some other way preferable. We farmers should profit by these examples. If we have a good article to sell the way to sell it is to inform buyers about the matter. From experience and observation I am convinced that it is just as profitable for the farmer to advertise as it is for any other business man.

"I know a farmer who is very particular to have the cleanest and finest seed wheat, and a little local advertising took all his wheat at nearly double market prices. I know others who have just as fine wheat but they hide their light un-

der a bushel and sell their wheat at the warehouse. First class products command a premium at all times and it pays to find the people who appreciate the best and are willing to pay a premium."

"How many horse-power is your automobile?" inquired the man in the dogcart. Ten horse and two men," responded the owner. "The ten-horse power runs it on the level roads, and my friend and I get out and push it up the hills."



The Hay Carrier.

# 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.

Sugar beets were a leading topic at the picnic of the farmers of East Durham, East and West Peterboro and East and West Northumberland on the 12th.

The experiments in and around South Renfrew have been abandoned for lack of interest.

The people around Barrie gave up the idea of putting in experimental plots this year, but will try it next year.

Guelph has not taken up the project with a great deal of energy. The factory at Berlin has killed it.

At St. Catharines little or no interest is being taken at present, though it is expected that later the farmers of that town and Welland will make an effort to do something jointly.

Peterboro is still alive on the subject, the \$50,000 bonus project of a promoter failed to materialize, but something may be done if the farmers will only contract for the growing of the beets to successfully run the factory.

Nothing is heard from Lindsay, Walkerton, London, Alvinston, Whitby, Cargill, Aylmer, St. Thomas, Simcoe, Mt. Forest and the sixteen other places that were in the business last year.

After the successful operation of the factories at present under construction for this season's work, has been demonstrated, it is time to build others.

The address of Dr. Mills at Warton on the 5th of the month was of great interest to the farmers of that district.

Prof. Harcourt is well posted on the subject of growing sugar beets and the farmers are pleased to discuss the matter with him.

There is a demand for limestone of suitable quality for sugar factory purposes.

## Berlin.

The work on the sugar factory for the Ontario Sugar Company is progressing rapidly. Mr. Dyer of the firm of E. H. Dyer & Co., who are building the plant was in town for several days and expresses himself satisfied with the way the work is getting along, it is now several weeks ahead of schedule time, the work of installing some of the machinery has already begun. The brick work of the main building is started and the work is being rushed at the rate of 100,000 brick per week. The machine shop is completed and all the machines are in use. The lime kilns are under way, the seed house will be finished this week, and the whole work shows

that the factory will be finished on time. Machinery is arriving every day.

The Agriculturist, Prof. Shuttleworth, is busy night and day, and reports most satisfactorily upon the beet fields. The beets show a magnificent stand, the thinning and the weeding being finished and the crop being very far advanced, the prospects being exceedingly bright for a very large tonnage. The Berlin Acreage Company who are growing several hundred acres for the company have over 300 Indians at work, and have interested the school children to such an extent that as soon as the school is dismissed for the day they are off to the beet fields to work, rigs are at the doors of the schools for them and hundreds take advantage of the opportunity to earn a little money, the wages paid the children are 8 cents per hour. The farmers in the vicinity who are growing beets are well satisfied with the outlook, and express themselves as

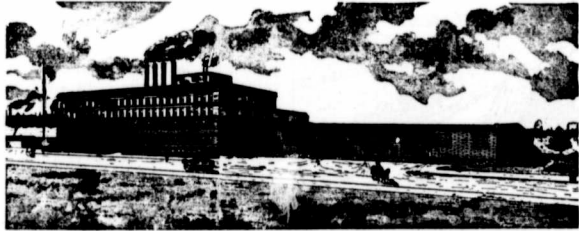
Dumont, the Engineer for the Construction Co., no part of it being sub-let. As far as possible all the machinery that can be secured in Canada is being put in, such as boilers, engines, tanks, etc.

## Beet Sugar Report.

### The Present and Future of the Industry.

Secretary Wilson's report on beet sugar industry of the United States for 1901 has been made public, and contains some interesting reading for those persons who say that the beet sugar business in this country amounts to nothing. In the state of Michigan alone there are factories with a combined output capacity of 8,900 tons per day. In the whole United States the department of agriculture finds there are now projected new factories that will cost a total of \$49,000,000.

Speaking about the probable future of the industry the report says: "Consumption of sugar in



As the New Beet Sugar Factory at Warton will Appear when Completed.

finding the work of thinning much less than expected and the help satisfactory.

Take it all around the Waterloo farmer is jubilant over the growing of Sugar Beets.

## Warton.

The past week has shown that the Colonial Construction Company who are building the factory for the Warton Beet Sugar Company are the right men in the right place. The steel work of the building is being rapidly put in place, the stone work is up to the third story in the main building and the other buildings will soon be ready for the roof, machinery will begin to arrive in a few days, and will be unloaded directly into the building and put in place from the cars, the railway tracks running into the building for that purpose. Mr. Snider, the agriculturist, reports the acreage as very satisfactory and expects to have at least 60,000 tons to work up.

The entire construction of the plant is being done by Mr. J. C.

the United States during 1902, calculated from figures for 1901, will be approximately 2,500,000 tons. Of this amount Porto Rico should supply 100,000 tons and Hawaii 300,000 tons, a total of 400,000.

Deducting this from the 2,000,000 tons it leaves 1,600,000 to be brought from foreign sources paying duty. While the above are only estimates, they are believed to be substantially correct.

"It is the ambition of those encouraging the sugar industry to establish factories enough at least to supplant foreign supply. Making allowance for failure of factories to reach full capacity under ideal conditions it will require 500 factories having a daily capacity of 500 tons of beets to produce this sugar. There will doubtless be an increase in the production of cane sugar in the south which should be taken into account. But for convenience of calculation it is here assumed the increase will be in beet sugar production only. To equip and build these factories it will require an investment of \$250,000,000. This vast amount of money must be ex-



pended in this country for building materials and machinery and in the employment of labor necessary to construct and equip the factories. The states of New York, Ohio, Illinois, Wisconsin, Iowa and Minnesota compare very closely in natural conditions and resources of the state of Michigan. Some of them have natural advantages that Michigan has not. In these states the sugar industry has not been taken up and developed as rapidly as in Michigan, but evidently some if not all of them will be equally important factors in the production of beet sugar."

Berlin, Germany.—Prices on the sugar markets of Germany have gone up this week, because prospects for a record breaking crop of sugar beets went down several notches. Rain, cold and frost are not very promising arbiters of sweet beets, during the best part of the month of May. Of course the moisture has helped to develop those beets which were planted early, but in some sections the beet seed is still housed awaiting a break in the bad weather, before seeding will be possible. The damp weather has also produced an abundant crop of weeds and on the whole has been quite unfavorable. From several sections come reports that fields carefully prepared for sugar beets will have to be planted to some other crop, because it is plainly evident, that the soil will not be ready for seeding for some days or weeks yet. While this is bad for the farmers and beet growers, who have devoted much time and money to a proper preparation of the field, still for this country and its sugar industry every report at this time promising a reduction in the acreage devoted to beets in Germany, is a real God send, especially to those who are holding large quantities of beet sugar. America has again withdrawn from the active market, being now determined to call in their crop of Cuban cane sugar and large quantities are reported to be now under way. Our own refiners have bought largely the past week, and thus helped to keep the prices at a better point than for weeks past. Even the refiners seem now satisfied that Germany will not produce as much beet sugar as she did a year ago, and that the stagnation in the world's sugar markets will be somewhat relieved this year.

#### How To Start a Factory.

When a community of sugar beet growers organizes to engage in the cultivation of sugar beets, for the purpose of determining how much can be made per acre in growing the crop, the foundation stone is then laid on which a factory will be built. Success in raising the beets means the results of learning how to do the work. It requires skill, a knowledge of the soil, moisture conditions and labor necessary to produce a proper growth of

plant, in order to be a successful sugar beet grower.

It will pay any community of farmers or soil tillers, who contemplate raising sugar beets, to employ an expert grower, one who thoroughly understands the requirements, from the plowing of the ground to the harvesting of the crop, in order that he may personally supervise the work.

Where poor families have taken hold of this work, with instructions as to the proper methods of cultivation, etc., they have in most instances made not only good wages but good family support for the entire year.

There are hundreds of acres of vacant lands within the city limits of large cities that could be made to yield a good livelihood to hundreds of our poor people, where nearly all the labor on the crop could be that of women and children. Managers of sugar beet plantations have universally endorsed the woman and child labor, in the beet fields, as superior in results to that of the full-grown man.

The work is healthy, clean and honorable and the income is a good return for the time and labor employed. No one need be idle and not in a position to earn an honest living, so long as sugar beets will command \$4 per ton and the present market advantages are at hand.

#### Seeding Time.

The seeding should be done towards the last of April or early in May, and the land should be cultivated the day before seeding; let it dry and then roll, so it will become pulverized; harrow it until it looks like an onion bed; then roll the last thing at night, so it will be good and damp for the seeding. It will take about 16 lbs. of seed to the acre. Do not roll the land after seeding, and let the seed go in an inch deep. Preservation of soil moisture is a good test for the farmer. Do not let your land get weedy, because it will cost you a large sum of money per acre to put it in shape for the cultivation of sugar beets; but once under good cultivation it will be easy to keep it clean after. About four days after seeding the leaves should be up, and every seed should send up three or four plants. The rays of the sun will absorb black soil, but not light. When thinning, use a hoe about five inches wide, and bunch your beets about seven inches apart. The Ontario farmers are the most successful growers of root crops in the world, because there is plenty of good fertile land. You should sow one quarter of an acre of the sugar beet seed in a carefully selected spot on your farm, and give it a trial; it will be an object lesson, and will not cost

## Copper and Brass Work

Of every description. Special attention given to plants for Beet Sugar Factories, Glucose, &c. Get our quotations

### COULTER & CAMPBELL

155-7 GEORGE STREET,

TORONTO, ONT.

## The Booth Copper Co., Limited

COPPERSMITHS

Established 1854

COPPER WORK FOR



Sugar Houses

Breweries

Distilleries, Etc.

115-123 Queen Street East,

TORONTO, CANADA

## 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.

much. A factory distributes over \$200,000 per year among the farmers.

**Molasses Vinegar.**

ANOTHER BY-PRODUCT OF SUGAR FACTORIES

At a meeting held in Caro last Friday afternoon at which Caro and Bay City and Saginaw beet sugar men were present, a temporary organization of the Caro Vinegar Co., was effected. Those present at the meeting were Charles Montague and Fred Wheat of Caro; Benjamin Boutell and W.C. Penoyer, of Bay City; and W. V. Penoyer, W. A. Baker and Robert McKinney of Saginaw. The new company is organized for the manufacture of vinegar from beet sugar molasses and also for the testing of several other experimental processes in connection with beet sugar refuse. The capital stock was \$10,000, and the officers were elected as follows: President—Charles Montague, Caro, Vice-President—W. C. Penoyer, Bay City.

Secretary and Treasurer—Fred Wheat, Caro.

The above election is temporary only and in the course of about 60 days a permanent organization will be effected. The company will by that time be in a better position to know the true value of its experiments, and a new company with a capital stock of \$100,000 or \$200,000 will be formed, if the experiments are as successful as they are expected to be.

The company decided to locate its plant at Caro. Charles Montague, its president, has put a number of men at work on the erection of the plant, which the company will occupy, and it is probable this building will be completed within a month or five weeks.

When the re-organization of the company is effected, it is probable that its headquarters will be removed to Saginaw.—Michigan Sugar Beet.

**The American Construction & Supply Co.**

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

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

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

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

**Bartlett, Hayward & Co.**

ESTABLISHED 1832

Designers and Constructors

**Beet Sugar Factories**

RESULTS GUARANTEED

Works and Main Office: BALTIMORE, M.D. Branch Office: 100 Broadway, NEW YORK, N.Y.

**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.

**Our Watches**

May be handed from father to son—heirlooms—they are as nearly perfect as possible, yet not expensive, hundreds are now in use by those who are particular about accurate time. Let us send you our catalogue showing the many styles of solid gold, fine gold filled, silver and gun metal. Watches in both ladies' and gentlemen's sizes.

**AMBROSE KENT & SONS**

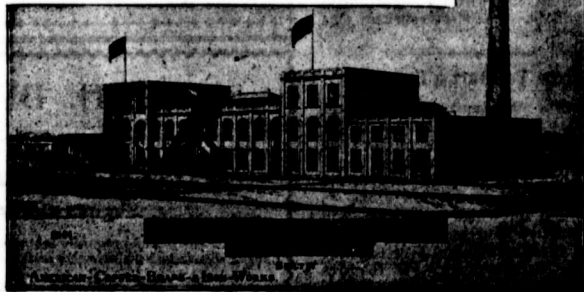
MANUFACTURING JEWELLERS LIMITED  
156 YONGE ST. TORONTO  
SHEPHERD ST. WEST TORONTO

**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.

Cable Address: "MEINSHAUSEN" A.E.C. Co. e.



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

# 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', \$1.  
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 Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

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

A. P. WESTERVELT, Sec'y.  
Parliament Buildings, Toronto, Ont.

### List of Stock for Sale.

#### DOMINION CATTLE BREEDERS' ASSOCIATION.

##### Shorthorns.

Trestain, John & Son, Strathburn.—12 cows with calf by side; 8 cows and heifers with calf; 4 yearling heifers; 4 heifer calves; 8 bulls, 2 months.

##### Ayrshires.

Owens, W., Montebello, Que.—1 bull, 4 years; bulls, 6 to 14 months.

Reid, R. & Co., Hintonburg.—10 bulls, 1 to 15 months.

Taylor, F. W., Wellman's Corners.—1 yearling bull, number of spring calves, both sexes.

Yuill, J. & Son, Carleton Place.—4 bull calves, under 9 months, females all ages.

##### Durhams.

Warren, J. L., Acton.—2 bulls, 13 and 15 months respectively.

#### DOMINION SHEEP BREEDERS' ASSOCIATION

##### Leicesters.

Armstrong, Geo. B., Teeswater.—Aged ewes, shearing ewes and ewe lambs.

##### Southdowns.

Frank & Son, A., The Grange.—A number of lambs and sheep.

##### Dorsets.

Hunter, John, Wvoming.—Ewes and rams, different ages.

##### Shropshires.

Yuill, J. & Son, Carleton Place.—1 ram, 3 shears, 2 rams 2 shears, 4 rams 1 shear, 6 ram lambs, females all ages.

#### DOMINION SWINE BREEDERS' ASSOCIATION.

##### Yorkshires

Comerford, F. A., Eldorado.—1 boar 2 years, 4 boars 1 year, sows, litter in August, 10 sows, 3 to 6 months.

Frank A. & Son, The Grange.—A number of young animals.

Hurley, J. M. & Son, Belleville.—10 boars, 6 sows from 8 to 12 months.

##### Berkshires.

Comerford, F. A., Eldorado.—3 boars, 1 boar 1 year, 2 pigs, 4 months.

Reid, R. & Co., Hintonburg.—Young sows in pig, 40 young pigs, not akin.

Sherwood, T., Fergus.—6 sows, 3 months; 4 sows, 9 months.

Yuill, J. & Son, Carleton Place.—1 boar 8 months, 10 boars 6 weeks, females all ages.

##### Famworth.

Reid, R. & Co., Hintonburg.—100 young pigs, pairs not akin, 2 boars, 7 months.

##### Poland Chinas

Siprell & Carroll, Casholme.—2 boars, 3 sows and spring pigs.

### 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 man to work on a farm in York County. Must be a fair ploughman and a good hand with horses. Wages \$20 a month and board for five or six months. No. 108. a.

Wanted.—A young man to work on a dairy farm near Toronto and do general farm work. Will engage by month or year. Wages according to experience. No. 109. a.

Wanted.—A young man to help in all kinds of farm work for the summer months. Engagement to begin at once. Farm situated in Prince Edward County. No. 104. b.

Wanted.—A young man with no bad habits who is willing to help milk and make himself generally useful on a farm. Wages \$18 to

\$20 a month. Farm situated in Dufferin County is 150 acres and pure-bred stock is kept. A good position for a young man wishing to learn farming. No. 105. b.

Wanted.—A young man to work on a farm in Brant County. Good wages. No. 106. a.

### Domestic Help Wanted

Wanted.—A housekeeper, a thoroughly good woman, middle age preferred, to take charge of the work on a 100 acre farm where dairying is done. Woman will not be expected to do milking. Must be an economical housekeeper, with first-class references and must be willing to work. May come on trial for one or two months, and if satisfactory will be engaged by the year. House very comfortable, heated with hot water and supplied with all modern conveniences. Three men employed all year. No washing to do except for the Manager. Methodist, Presbyterian and English churches within two miles of farm. Neighborhood good. Permanent home to right party. No. 107. b.

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

### Farmers' Institutes.

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

G. C. CHELMAN,  
Superintendent Farmers' Institutes.

### Annual Report of South Grey Farmers' Institute, May 31, 1902.

To the officers and members.

Gentlemen:—Your executive committee beg leave to present the annual report of the transactions of the Institute for the past year.

The annual meeting was held on June 4th, 1901, about 300 being present. Officers were elected for the ensuing year. Arrangements were made for meetings during the year, and other routine business was transacted, after which Miss Laura Rose gave an interesting address upon "The Difficulties of the Dairy and How to Overcome Them." An excursion to the Ontario Agricultural College took place on June 26th when about 1,200 visited the farm. The regular meetings were held at Durham and Holstein. There was a good attendance at both and good address-

ses were given by Messrs. Caston and Sleightholm and Mrs. Campbell. Supplementary meetings were held at Dromore, Ayton, Hanover and Elmwood. The weather was extremely stormy and the attendance small. Addresses were given at all the places by Messrs. Tompkins and J. E. Orr.

The seed fair was held on March 25th. The roads were broken up and the attendance small, yet a good quantity of grain and potatoes changed hands.

Quite a number of our members attended the Fat Stock Show held at Guelph in December. It is worthy of a visit by all.

The aggregate attendance at all the meetings was 1,900.

Geo. Binnie, Sec.

### Women's Institutes.

One of the most encouraging features of our whole Institute system is our Woman's Institute work. Throughout the whole country women are gladly taking hold of this organization and finding in it just what is wanted to bring them together and help them in their own particular sphere. Just as in our Farmer's Institute meetings, each one is able to gain information and help from the discussions of subjects of common interest. Besides this the Institute is a wonderful help socially. Our women are brought out of their homes for a few hours away from the monotony of their own daily round, and after a period of pleasant intercourse with their neighbors in a short bright meeting, they go home with new ideas and an added interest in their own home circle. Science during the last decade has done much for us all but no one has she crowned like the housekeeper. The ologies have come down from the heights of "Wisdom Supernal" and now in practical form reside in the home.

By the educative influence of women's organizations the exclusive knowledge of the professor has been applied to home duties and practices. In our Women's Institute meetings it is no uncommon thing to hear discussion on such topics as the "Chemical Composition of Flour in its Practical Bearing on Bread Making". "The Physical Principles of Home Sanitation," "Bacteria as they effect the Products of our Dairies," etc. This knowing and doing in the light of exact scientific knowledge cannot but be of great good to our women.

WEST HURON.

This work of the Women's Institutes in Ontario is well illustrated in the last report sent in by the West Huron branch.

"A picnic was held in Forester's Flats, Colborne Township on Saturday, May 24th, under the auspices of the West Huron Women's Institute. The day was rather threatening but two hundred people assembled. The following addresses were given.

"Our Homes," by Rev. Mr. Burn. "Our Country," by Rev. Mr. Shaw.

"Food," by Rev. Mr. Hussar. "Chairman's Address," R. Holmes, M.P.

"The Best Organization for Women," Mrs. Colin Campbell.

The day passed off pleasantly with music, recitations and other entertainments.

At other meetings of the Institute the following papers were given and discussions held on them.

"Starting Slips and Potting Flowers," by Miss M. Green.

"Canning and Preserving Strawberries" by Mrs. Colin Campbell.

"Bread Making" by Mrs. Tebbull, Holmesville.

"Flowers," by Miss Wilson. "Soap Making," by Mrs. M. Schnay.

nations that no matter to which we trace origin, whether British, French or German, we have every reason to feel a pride in, and no cause to feel ashamed. We will also see a young country rich in natural resources, among the wealthiest countries in the world in her resources of mine, forest, field and fisheries, all awaiting the intelligence, energy and enterprise of our rising generations to become properly developed.

Having, therefore, the blood of the best people of the world in our veins and living in a country of enormous natural resources, what should be our aim in educational affairs? Are the educational ideals of the older and wealthier nations of Europe suited to our need? Is the traditional classical education of England what we require? I think not. Each nation must educate itself in its own way and for its own ends and it seems to me that we require such a system of education and training, as will enable our young men who are poor in money, but rich in brain and muscle, to give of their best in the effort to develop the natural resources of our country. I have no objection to a classical education, but it is rather for those who have the inclination, money, and leisure to pursue it and I question strongly the wisdom of making it compulsory for all our young teachers and matriculants. Classical education will take care of itself and professional education we need not greatly concern ourselves about. Although this is essentially an agricultural country, the vast majority of our schools have been in the past and are now preparatory schools for professional life, and insufficient attention has been given to the proper training of that vast proportion of our children who leave our country schools in early life, to follow the occupation of their parents on the farm, or becoming tired or dissatisfied with this, to drift into our large centres, there to earn their living as best they can.

In the past few years we have seen a desire on the part of the government to give more attention to the needs of the commercial classes by establishing a commercial course in our high schools and to the manufacturing classes by giving aid to technical schools and manual training classes, but for that great body of our people who are, without doubt, the bone and sinew of our country little has been done as compared with what could have been done. It is not my business, nor have I a wish to criticize the government, as their legislation is usually as far in advance of public opinion as it is wise to go. I am well aware that for the past quarter of a century fitful attempts have been made to teach agriculture in our public schools by means of a text book and by means of teachers wholly unprepared by knowledge or training to make even a moderate success of it, but this verbal teaching of ag-

## Agriculture in Public Schools

By G. K. Mills, B.A., Collingwood.

Many present here to-night wonder by what right, I a principal of a collegiate institute presume to address a Farmer's Institute and perhaps to offer advice on some points. As evidence that I have been in the past and am now, in a position to become acquainted with the conditions surrounding the subject on which I am about to speak, I may say, that I was born and reared on a farm. I have worked at home on the farm, I have worked on other people's farms and I have worked my own farm. Further, I have taught in an ungraded country school, as principal in a village school, and as assistant in both high school and city collegiate institute. Having thus, as it were, served my apprenticeship under all the conditions necessary to a knowledge of what is needed and what can be

done for Agriculture in the public school. I hope you will bear with me while I present to you what I think could be done and should be done in the matter.

While we as Canadians are concerned regarding the prosperity of Canada as a whole, it is with that particular Province in which we live that we are more particularly interested, but since the products and natural resources of our Dominion resemble so closely those of our province, I think I may safely say that the methods of education that are beneficial to this province will prove beneficial to the Dominion at large.

If we consider our country for a moment, we will see a young country, peopled by the descendants of the best nations of Europe, nations that in the past proved themselves first in the arts of peace and war,



riculture did not amount to anything in the past, nor will it amount to anything in the future, if not supported by practical application. I also know that agriculture is a science or has its roots embedded in many of the sciences, and a man cannot be supposed to have a profound knowledge of these before he can become a successful farmer. It is not required of him that he shall, but if he has become a successful farmer he must have acquired very many of the underlying principles of these sciences whether he did so because of his early training in schools or as a result of bitter experience when he grew older.

Those men who have been the most successful are the very people who most regret that in their younger days they did not receive some guidance and training so that they might have, because of a knowledge of some simple underlying principles, escaped the expensive consequences of their later mistakes. These men have learned proper methods by long experience and why should we not give our children some direction as to the right and wrong methods of setting about their work, instead of leaving them to follow blindly in the methods of their parents and grand parents, only to find out correct methods after repeated failures. I believe that we owe it to our country and to our children to provide for them some means whereby they may profit by our experience and by the experience of those who have made a special study of the conditions necessary to success.

How may this be done? I will try to tell you some of the things that might be done in our schools; first, as they are at present, second, as I would like to see them equipped. To make myself clear, I will take a definite example. Suppose that when spring opens the teacher should ask the pupils to watch for the earliest appearance of the tent caterpillar. Ask them to cut off the branch on which they appear and bring it to school, the position and appearance of the egg masses may be shown them. Push the cut end through a piece of paper and place in a bottle, filled with water, set it in the window and await developments. The twig will leaf out and blossom, the worms will feed on the leaves and grow rapidly, the water will disappear rapidly from the bottle and will need replenishing every day or so. When the leaves are about eaten it will be necessary to bring fresh branches to be placed in the bottle, or in another bottle alongside and leaned against the others. The caterpillars will continue to feed and grow lustily until about the middle of June, when they will be full grown and become restless. When this is noticed the bottle containing the branches and nest may be placed in a wooden box, fitted with a lid, to prevent escape. The worms will shortly disappear and all that can be found are small, white cocoons. Ask the pupils to

bring a small paste board box of any kind, and give each a cocoon to take home and examine daily. About the middle of July the cocoons will hatch out into small, brownish moths. The children may afterwards be told that these are moths that lay eggs on the trees, which hatch out the following spring to form a fresh nest of caterpillars.

What will the pupils learn from this? They will learn what very few farmers know, viz., the amount of damage that must be done by a few nests of these caterpillars. This is not so easily detected on the tree, as it is continually putting out fresh leaves as the first ones are eaten. Their attention could be called to this and they could be easily led to see that the effort and nourishment necessary to do this must reduce the power to produce fruit. The relation between leaves and light could be shown as these second leaves would not have appeared if the buds had remained shaded by the first. This fact might lead to some of the principles underlying the object of pruning. The large amount of water needed by a growing tree would be apparent to them and the necessity and methods of providing for this in their care of the orchard might be discussed. By watching the habits of these caterpillars, he will see that if he wishes to destroy them he must either kill them by spraying, as they eat the leaves, or he must remove them during the cool of the evening or on a cool day, when they are at home. He will learn that without careful watching and attention he cannot make a success of his orchard, and as this moth flies lar, he will learn his responsibility to his neighbor in the matter of destroying as many of the nests as possible. Above all, he will learn that it is a simple matter to trace the life history of such pests, and knowing this, will he not, when grown to manhood, approach similar subjects in a more intelligent manner than he would had he received no such training? It is not so much the knowledge, although that is exceedingly valuable, as the training he receives in the manner of approaching the subject.

I could dwell on example after example, but these will suggest themselves to every teacher who has received any training; I might mention the codlin moth, the cabbage worm, the potato bug, the pea bug, the house fly, the wiggler in the rain barrel. The object is not to multiply examples, but to illustrate methods and to show the pupil that he can work out for himself new cases that confront him in later life.

So much for insect life; now let us consider other life. Could not a boy be made familiar with those plants that are injurious,

their habits, their surroundings and methods of eradication? Could he not be taught by the examination of the contents of the crop how to determine what birds are beneficial and what ones are injurious? Could he not be taught to determine the quality of the soil? By stirring a handful in a bottle of water the sand, being heavier, settles first, the clay next and the vegetable matter last. He is then in a position to find out for himself in what one soil excels and in what another is deficient. By a few simple experiments and observations he could easily be led to find out the effect of too much rain on one kind of soil or drought on another. He would then be able to discuss drainage and fertilizers intelligently.

(Continued in next issue.)

## In the Dairv

The purity of Windsor Salt shows largely in the increased demand from the largest dairies. For rich, delicate flavor, and quickness with which it dissolves, in butter or cheese, it is unequalled.

### Windsor Salt

*Best Grocers Sell it*



**AS AND DEAL  
ASOLINE  
ENGINES**

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



The Perfected Product of Many Years' Experience.

Also Makers of Steel Windmills and Water-works Outfits, Etc.

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

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

# The Farm Home

## Dr. Goodcheer's Remedy.

Feel all out of kilter, do you?  
 Nothing goes to suit you, quite?  
 Skies seem sort of dark and cloud-  
 ed,  
 Though the day is fair and bright?  
 Eyes affected,—fail to notice  
 Beauty spread on every hand?  
 Hearing so impaired you're missing  
 Songs of promise, sweet and  
 grand?  
 No, your case is not uncommon,—  
 'Tis a popular distress;  
 Though 'tis not all contagious,  
 Thousands have it, more or less:  
 But it yields to simple treatment,  
 And is easy, quite, to cure,  
 If you follow my directions,  
 Convalescence, quick, is sure.  
 Take a bit of cheerful thinking,  
 Add a portion of content,  
 And, with both, let glad endeavor,  
 Mixed with earnestness, be blent:  
 These with care and skill com-  
 pounded,  
 Will produce a magic oil  
 That is bound to cure, if taken  
 With a lot of honest toil.

## Butter-making Evolution.

No very many years ago, every farm house was provided with a spinning wheel, a reel, and a set of swifts and every farm girl was expected to know how to spin wool into yarn for the home made blankets and flannels and to double and twist the yarn for stockings and mittens.

Many a weary walk those girls took, to and fro on the hard kitchen floor, in the long summer days, in manufacturing what is now done in large quantities by machinery in the woolen mills. The spinning wheel with its accessories is stowed away in the attic.

The hand loom too, was often seen in the farm houses to make the bright colored yarns into flannel which would clothe the family. Though the so called home spun is worn to-day, yet that manufactured in the Canadian houses is a thing of the past.

No doubt the women then thought that factory spun yarn or factory made flannels would not be of so good quality and that it would look like laziness for the women to get their yarns and flannels made in the mills instead of at home. But so it is and none of us would care to be seen out in those flannel dresses or full cloth suits. Will the day soon come when the churns, butter bowls and ladles will be a curiosity in the attic? There is a constant evolution in butter making utensils and methods. In fact I have in mind three different styles of butter print, the first a carved disk on which the butter was shaped, the next the round print, the last the brick shaped mould, which is now so popular, and there have been churns and churns and some still claim the

dash to be the superior. I am convinced that the large factory churn, the factory butter workers, the factory milk separator and the factory finished article is much superior to any hand method that has been or can be introduced. It is a proverb that women on farms are over worked and worn out before their time. But it is often her own fault that she still makes butter at home. (I churned to-day.) Where a creamery is within her reach to which she can send either the milk or the cream she is indeed foolish if she will spend valuable time and strength, day after day, through the long summer, handling a churn, butter ladle and butter mould. Creamery butter usually sells for two to five cents higher than dairy butter, but if it were the other way, is not her time and strength worth considering?

To those of us who are not within reach of a creamery, it might be well if we could raise more calves, feeding them new milk and thus make more money with less labor than if we turned the milk into butter, instead of into meat, but the next difficulty which meets us is the fact that our cows do not have twin calves and it is impossible to get good calves to buy for in this district which is a short-horn grade, export cattle, district, all calves are raised. A few people around town have sometimes a Jersey grade for sale, but such calves are not considered profitable as when full grown they are not in demand.

At present I am not advocating that whole milk is the cheapest calf food, I am recommending it as a labor lightener for farm women.

We are travelling through this world for the last time, unless there is something in "soul transmigration," and it might be a good plan for us to show our appreciation of the good old world in which it is our fate to be placed, by taking our share of all the enjoyments it offers to us, and we can't enjoy even making good butter when we are tired out. The old cow in the shady pasture, quietly chewing her cud takes more pleasure out of her short existence, than do those women who are too busy to rest in shady pastures and figuratively "chew their cud." For what do we work any way? Is it not to make our board and clothes and our pleasures? Well, let's mix in a generous supply of enjoyment with our work.

M. E. Graham.

An Irish laborer boarded a street car and handed to the conductor a rather dilapidated looking coin in payment of his fare. The conductor looked at it critically, and handed it back.

"That's tin," he said.  
 "Shure, I thought it was foive," answered the Irishman.

## Hints by May Manton

WOMAN'S SHIRT WAIST, 4152.

Shirt waists that are full at the shoulders suit many figures better than any other sort and make admirable additions to the wardrobe. The stylish model shown is cut after the latest style and suits many materials, Oxford Madras, linen batiste, dimity, and the like as well as waisting flannels and light weight wools and silks; but the original, is of white butchers linen and is worn with a stock and tie of the material, the latter dotted with French knots in blue. When desired it can be made with elbow sleeves and a collarless, or English neck as shown in back view.

The waist is made quite simply and cut with fronts and backs only. The back is plain across the should-



4150 Shirt Waist,  
32 to 40 bust.

ers drawn down in gathers at the waist line, but the fronts are arranged in gathers at the shoulders and can be gathered at the waist line or adjusted to the figure as preferred. The sleeves are in bishop style with the fashionable cuffs that are buttoned over at the seams. At the neck is a regulation stock and the fronts are finished with a central box plait in which buttonholes are worked. When desired the sleeves can be cut at elbow length and finished with bands to match the neck.

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

The pattern 4150 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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

It is probable that shirt waist men are also ping-pong players and ice cream eaters.

**Less Space.**

At 8 p.m., while Pa and Ma Helped entertain, with Sis, Both John and May in distant seats Were far apart like this.

At 9 p.m., as Pa withdrew And sought his room upstairs, The lovers found some photographs And nearer brought their chairs.

At 10 p.m., Mamma decamped— And then, ye gods! What bliss! Those lovers sat till nearly one About as close as this.

**South Muskoka Women's Institute.**

The meeting of the South Muskoka Women's Institute on June 5th was the most enthusiastic one yet held.

After business was disposed of a very practical address was given on "Our Common Foods." A little observation will prove that there is a great amount of ignorance on these matters. Notice how many people give to small children strong foods which are only suitable for adults, although they would see at once the folly of treating the young of domestic stock in the same way. Climate and occupation are the most important factors in deciding the quantity and quality that is best for us; the colder the climate the greater the quantity of food required with a larger proportion of fat and sugar. Those who work in offices would be ill if they ate as much as is required by those who work in the open air. The digestibility and nourishing qualities of the various meats, vegetables and cereals in common use were given in a simple and interesting way that drew forth a hearty discussion and exchange of opinions. This was followed by an address on "The Importance of Proper Diet". Those who live to eat cut life shorter and make health poorer. To eat to live requires some discretion and a knowledge of the elements contained in the foods eaten. Too many people eat too often, which interferes with proper digestion. Regular hours for eating should be observed.

Much harm is done by eating too much. The stomach that is crammed with food has no room to dilute it with the gastric juices, so the food passes on with little or no nourishment taken into the system or worse still, remains to decay in its undigested state thus causing foul gases and impure blood. This evil is avoided by those who eat slowly because the process of digestion commences before the meal is finished and the stomach gives notice when enough has been taken; whereas the rapid eater treats his stomach like a dark bottle that is filled with a funnel and over-runs before he knows it. Another wrong in rapid eating is that the food is swallowed in pieces too large for easy digestion and the digestive organs are thus strained and finally

weakened. Never force food into the stomach when there is no appetite; loss of appetite is Nature's safeguard for a deranged stomach that is unable to perform its duties and should be set right before giving it more work to do. If you would be free from dyspepsia avoid eating too much, too fast and too often.

Another member gave some notes and extracts on "The Causes of Cancer." This terrible disease is becoming so prevalent that it is important to us to learn, if we can, how to avoid it.

In 1901 the British Medical Association appointed a committee who investigated five thousand cases, the evidence pointing to the following facts. Certain localities are more subject to cancer than others. Soil contaminated with decomposing organic matter, also a damp, ill-ventilated, water-logged soil is found associated with cancer. It occurs more frequently in old than in new houses and districts and there are groups of houses in which it is found with marked frequency. Following are some of the predisposing causes:—Prolonged local irritation, due to various causes, setting up local inflammatory changes in the irritated tissue. The effects of sudden and direct injury. Syphilis and possibly other constitutional diseases which are associated with local tissue changes. The tissue degenerations of advancing years. The parasitic organism or germ gains entrance into the body by absorption and by direct inoculation through abrasion of the skin. The houses in which cancer is most common are those with damp, dark cellars in which dry rot abounds.

All medical authorities seem to agree that tomatoes are in no way responsible for cancer. Vaccination is credited with introducing cancer into the blood of many people. Dr. Braitwaite of Leeds Infirmary (Eng.) maintains that the excessive use of salt in food is one of the four factors in the causation of cancer; the others being (2) an over-nourished condition of body from more food and especially more meat than is required. This condition is rarely met with among outdoor workers. (3) An impure condi-

Results from common soaps: eczema, coarse hands, ragged clothes, shrunken flannels.

**SUNLIGHT SOAP REDUCES EXPENSE**

Let's see the Difference Now

tion of body owing to non-use and non-oxidation of the food eaten. The cells of the body in this condition are loaded with effete material. (4) Some local irritant, such as the stem of a pipe. Dr. Braitwaite furnishes a considerable mass of evidence to prove that the too liberal use of salt is always associated with cancer, but no cancer is found among people and animals who do not use salt.

A. Hollingworth, Sec'y.

"Take the open air,  
The more you take the better;  
Follow Nature's laws  
To the very letter.  
Let the doctors go  
To the Bay of Biscay:  
Let alone the gin,  
The brandy and the whisky.  
Freely exercise,  
Keep your spirits cheerful;  
Let no dread of sickness  
Make you ever fearful.  
Eat the simplest food,  
Drink the pure, cold water;  
Then you will be well,  
Or, at least, you 'oughter.'"

**FITS EPILEPSY**

**FREE SAMPLE OF LIEBIG'S FIT CURE.**

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

Boils, Ulcers, Pimples, and all skin diseases can be cured very quickly by the application of the famous Indian Herb Salve, NO-CHI-MO-WIN (the healing breath). No-Chi-Mo-Win Salve contains nothing to irritate, no poisons, is absolutely harmless, but its curative powers seem really magical.

**BOILS AND ULCERS CURED**

A first application on boil or ulcer, sore or pimple, soothes the burn, stops the throbbing, allays the itch; in a short time the poison causing the sore is absorbed, the blood builds up new tissue, and the boil, or pimple, or sore disappears.

It will not return if NO-CHI-MO-WIN Resolvent is used in connection with the salve. No-Chi-Mo-Win Resolvent is a tablet for internal use. It is the best of tonics; it strengthens the stomach, activates the liver, sends fine, strong, pure blood coursing through the veins, revives youth, and is the best known permanent cure and preventative for disfiguring sores and pimples, and painful boils and ulcers.

No-Chi-Mo-Win Salve and Resolvent together form a positive guaranteed cure for all skin troubles and any purchaser can have his money refunded if they do not prove as represented. Neither are sold at drug stores.

No-Chi-Mo-Win Salve costs 50 cents per box; No-Chi-Mo-Win Resolvent, 50 cents per box. The complete treatment is sent postpaid, securely sealed, on receipt of \$1.00.

Chime Chemical Works, Wlarton, Ont.

N.B.—This treatment is a positive cure for piles.

# The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

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

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TORONTO.

## QUESTIONS AND ANSWERS

### Cutti g Rye for Hay.

A subscriber asks: "Does rye make good feed for cows not in milk? When is the best time to cut rye for hay?"

The best time to cut rye for hay is when the great majority of the heads are in full blossom and a while before the seed is fully formed. In this follow the method with clovers and grasses and cut at about the same stage of maturity. If the seed is allowed to mature a very large proportion of the nutriment which would otherwise be in the stalk and leaves have gone into the head. For making hay the nutriment should be distributed throughout the whole plant as much as possible. Rye so cured should make good food for cows.

### When to Pasture Rape.

J. F. C. asks: "How tall does Dwarf Essex Rape have to be to stand regular pasturing?"

Rape should be six or seven weeks old before pasturing. Its height at this time will of course depend upon the character of the soil and also the season.

### Red Ants in Cupboards

A reader asks: "What can be done to keep red ants out of cupboards?"

A good plan is to sprinkle dry borax around the shelves more especially around the cracks where they will gain entrance. Some tansy leaves on the shelves will also do good. The odor from the tansy is not relished by these little pests and they will leave.

### Director at Rothamsted

Mr. A. D. Hall, M.A., Principal of the South Eastern Agricultural College, Wye, Kent, has been appointed by the Lawes Agricultural Trust Committee to succeed the late Sir Henry Gilbert, F.R.S., as director of the Rothamsted Experiment Station.

### Graduate School of Agriculture

A graduate school of Agriculture will be held at Columbus, Ohio, during July. It will be conducted under the auspices of the Ohio State University and with the co-operation of the United States Department of Agriculture, and the Association of American Agricultural Colleges and Experiment Stations. The first session will begin at 8 a.m. on July 7th and continue four weeks. The purpose of this school is to advance instruction in the science of agriculture. Only persons who have completed a college course and taken a bachelor's degree, or who are recommended by the faculties of the colleges with which they are associated, will be admitted to the privileges of the school. A well-arranged program has been prepared on which we notice the name of Mr. C. A. Zavitz, Experimentalist, Ontario Agricultural College. Particulars regarding the conference may be had on application to Prof. Thos. F. Hunt, Ohio State University, Columbus, Ohio.

### Halton Institute

The annual meeting of the Halton Farmers' Institute was held at Milton on Friday last. Addresses were delivered by Miss Agnes Smith, Hamilton, and Prof. H. H. Dean of the Ontario Agricultural College.

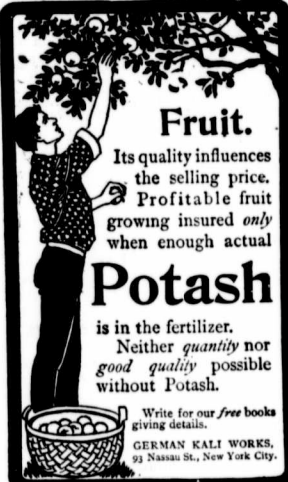
This Institute will hold its annual excursion to the Ontario Agricultural College, Guelph, on June 21st next. J. L. Warren, Acton, Ont., is secretary.

### Transportation Resolution

We are glad to see that some of our Farmers' Institutes are taking action in regard to the question of transportation. At the East Simcoe Farmers' Institute meeting, held on June 5th, the following resolution was unanimously adopted:

Whereas, the Dominion of Canada and the various provinces have from time to time spent enormous sums of money in the shape of bonuses to railways and in the building and maintenance of our splendid system of inland navigation, it would seem naturally to follow that the railways of this country should be operated in and for the interests of Canada and the promotion of the legitimate business of this country;

And, whereas, on the contrary, the railways in many ways discriminate in their rates both as to passenger and freight in favor of traf-



**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.

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GERMAN KALI WORKS,  
93 Nassau St., New York City.

## "About Heating"

is the title of a short common-sense treatise on the subject which we have just issued and which we desire to place in the hands of everyone interested.

It is brimfull of information and advice and no householder should be without it.

If you send us a card saying that you are interested we shall mail you a copy immediately, free of charge.


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514 Dundas Street, Toronto

## British Columbia Farms.

If you are thinking of going to the Pacific Coast try British Columbia: No extremes of temperature. No cyclones. No dust storms. No cloud bursts. No droughts. No blizzards. Fertile land, and the heaviest crops per acre in Canada, we make this statement without fear of contradiction. The land is cheap and the markets and prices for farm produce the best on the Pacific Coast. Write for Farm Pamphlet to the Settlers' Association, Box 500, Vancouver, B.C.

When writing please refer to this paper.



fic to and from the United States and certain sections of Canada:

Therefore, be it resolved that in the opinion of this Farmers' Institute of East Simcoe, it should be the duty of the Dominion and the various Provincial Governments to take such steps as will bring about an equalization of rates over all Canadian railways, so that no part of the Dominion shall continue to suffer injustice from excessive rates as compared with any other rates which may prevail on any portion of any of our railways;

And that a copy of this resolution be sent to the Rt. Hon. the Premier and the Minister of Railways for the Dominion and the Premier of Ontario.

**Grasses and Weeds**

Dr. James Fletcher of the Central Experimental Farm, Ottawa, delivered a very valuable address on "Grasses and Weeds" to the members of the East Simcoe Farmers' Institute held at Orillia on June 5 last. He also addressed the local Horticultural Society in the evening. Dealing with the question of grasses Dr. Fletcher said:

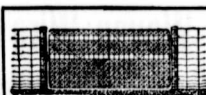
"The majority of farmers were still content to grow the same old mixture of timothy and clover which had been grown by their grandfathers. The mixture generally used was not even the best of its kind. Timothy was ready for cutting as a rule about the 1st of July, and the common red clover which was usually mixed with it, ten days earlier. Timothy and mammoth or pea vine clover was a better mixture. The mammoth clover was much in favor nowadays. Orchard grass and meadow fescue mix well with common red clover. June grass was the most valuable grass ever discovered for pasture, particularly for milch cows. This was fortunate since it was the commonest and most thriving grass in this part of Canada, and would in the long run choke out all others. Lucerne or alfalfa was good because of the depth to which its roots went, taking down nitrogen to improve the soil, and drawing up substances which other-

**DRAINAGE.**

FARMERS SHOULD ORDER A SET OF OUR moulds for manufacturing concrete pipe. All the leading municipalities are adopting them and farmers can make their own bridges and drains of concrete, which lasts a lifetime. Write for prices of moulds. All sizes. Sawyer & Massey Co., Limited, Hamilton, Ont.

**Special Excursion Rates**

Via the Chicago and North Western Railway to Denver, Colorado Springs, Pueblo, Salt Lake, Hot Springs and Deadwood, South Dakota during June, July and August. A splendid opportunity is offered for an enjoyable vacation trip. Several fine trains via the North-Western line daily. Full information and illustrated pamphlets can be obtained from B. H. Bennett, General Agent, 2 King street East, Toronto, Ont.



**PAGE METAL GATES** are so low in price

no one can afford to use wooden ones. Light, and yet strong enough to support a heavy man on the end while he swings around the circle without causing them to sag. They are neat in appearance, will last a lifetime. Will not sag nor get rickety. They are supplied with latches which allow them to be opened either way and are self acting. The only good metal gate that is low enough in price for General farm purposes. We also make Farm and Ornamental Fence, Poultry Netting, Nails and Staples. The Page Wire Fence Co. Limited, Walkerville, Ont.

**USE MICA ROOFING**

Send for sample Roofing



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

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

**Is It Your Condition ?**



Young in years but aged in appearance, losing your vitality, nervous, forgetful. Have you wasted the vigor of youth? Are you weak when you should be strong? Do you have "come-and-go" pains in your back, hips, shoulders and around your heart? Are you worn out before your time, man?

If you want to be as vigorous as you were before you lost your strength, to get up in the morning brighter than when you go to bed, to lose your pains and have a sound stomach and regular bowels, and become again a strong, perfect and healthy man, use

**DR. McLAUGHLIN'S ELECTRIC BELT.**

It has restored health and strength to thousands of weak and impotent men. If used as I direct it is a positive cure and cannot fail.

Estella E. Gordon, Staples, Ont., writes: "I received the Belt all O.K., and am more than pleased with it. I think it is worth many times its price, as I have found it almost an instant cure. I have worn it less than one month."

Letters like this are in every mail. Ask them and be convinced.

Mrs. John Whitefield, Columbus, Ont., says:—"To speak the truth, I cannot say too much for your Belt. It is the best remedy I have used since my health failed, and that is 32 years ago. All this time I have been spending money for drugs which did me no good. Since I got your Belt I have not taken one dose of medicine."

Ernie Chambers, Massey Station, Ont., writes:—"It is two months since I received your Belt and it is all right, and more than I expected. The nervousness is all gone and so is the tired feeling. I could not have done the work I am doing this spring if it was not for your Belt."

The confidence I have in the wonderful curative powers of my Belt allows me to offer any man or woman who can give me reasonable security the use of the Belt at my risk, and they can

**Pay When Cured**

**FREE TEST.** Call, if possible, and test my Belt FREE. Let me explain to you how it cures when others fail. Write for my

**FREE BOOK** Every man who admires the perfection of physical strength should read my beautifully illustrated book. It tells how strength is lost and how I restore it with my Electric Belt. I will send this book, closely sealed, free upon request if you will send this ad. If you are not the man you should be write to day.

**DR. B. A. McLAUGHLIN, 130 YONGE STREET, TORONTO.**

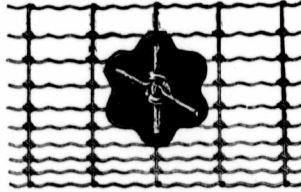
Office hours 9 a.m. to 6 p.m. Wednesday and Saturday till 8.30 p.m.

wise would be unavailable. Alsike clover also found favor; its peculiarity was the small seed, of which it was not necessary to sow more than half what was needed for the common red clover. These were practically the only grasses that were worth trying."

Upon the weed question the following valuable advice was given: "The character and nature of weeds should be understood, in order to fight them effectually. For instance some weeds were deep rooted, and some shallow rooted; and they should be treated accordingly. And the work should be done now and not two weeks later. There were three sorts of weeds—those which grew annually from seed; those which lived for two years, and those which would come up from the same root for many years. To know under which head each plant he had to deal with came was practically all the botany a farmer required. Those weeds which were annual could be eradicated by preventing seed from forming; the others only by getting at the root. To keep annuals from going to seed was an absolute and certain cure; but to cut them down after they had sent out their seed was largely waste of time. To be effective there must be co-operation amongst farmers in fighting weeds. There was no such thing as weeds being native to the land; they must grow from seed or from shoots. One of the most fertile sources of weeds was dirty seed—which was as a rule synonymous with cheap seed. It was poor economy to save a few cents a pound on seed, because as a rule cheapness meant that the seed had not been properly cleaned. Then there was the fallacy that by allowing weeds to grow and ploughing them down the soil was improved. He wished to combat that most strenuously. No ploughing down of weeds would put back into the land as much as had been taken out by the growth of the weeds. Clovers were the only class of plants which improved land in this way."

## Ideal Woven Wire Fencing

The latest improved up-to-date Wire Fencing. Made entirely from No. 9 hard spring wire, insuring strength and durability.



### AGENTS WANTED

The MCGREGOR, BANWELL FENCE CO., Limited  
Windsor, Ont.  
Coiled spring and other fence wires.

## WILSON'S HIGH-CLASS SCALES

SPECIAL PRICES THIS MONTH

On 2,000 lb.

Diamond Steel Bearing SCALES

Write To-day.

C. WILSON & SON

50 Esplanade St. E., TORONTO, ONT.



FLEMING'S LUMP JAW CURE

### LUMP JAW

Quickly and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. FREE. A practical, illustrated treatise on the absolute cure of Lump Jaw. Free if you ask for Pamphlet No. 317. Fleming Bros., Chemists, 88 Front St., West, Toronto, Ont.

## Low Round Trip Rates, Via Union Pacific, from Missouri River,

- \$15.00 To Denver, Colorado Springs, and Pueblo, Colo., June 22 to 24, inclusive, July 1, to 13, inclusive.
- \$19.00 To Denver, Colorado Springs, and Pueblo, Colo., June 1 to 21, inclusive, June 25 to 30, inclusive.
- \$25.00 To Salt Lake City and Ogden, Utah, August 1 to 14, inclusive.
- \$25.00 To Glenwood Springs, Colo., June 22 to 24, inclusive, July 1 to 13, inclusive.
- \$30.00 To Salt Lake City and Ogden, Utah, June 22 to 24, inclusive, July 1 to 13, inclusive.
- \$31.00 To Glenwood Springs, Colo., June 1 to 21, inclusive, June 25 to 30, inclusive.
- \$32.00 To Salt Lake City and Ogden, Utah, June 1 to 21, inclusive, June 25 to 30, inclusive, July 14 to 31, inclusive.
- \$45.00 To San Francisco or Los Angeles, Cal., May 27 to June 8, inclusive, August 2 to 10, inclusive.
- \$45.00 To Portland, Ore., Tacoma and Seattle, Wash., May 27 to June 8, inclusive, July 11 to 21, inclusive.

Full information cheerfully furnished on application to

G. G. HERRING, G.A.,  
126 Woodward Ave., Detroit, Mich

WOOD ENGRAVING,  
PHOTO ENGRAVING,  
HALF TONES  
168 BAY ST.  
J.L. JONES ENG. CO.  
TORONTO

## The GENUINE TOLTON PEA HARVESTER

With New Patent Buncher and Combination Divider at Work

Patented 1895-96 and 1901.



Far in Advance of All Competitors

Harvesters to suit all kinds of mowers, and every machine warranted.

Our Motto—"Not how Cheap, but how Good."

Price on application to any of our local agents, or send direct to—

TOLTON BROS., Guelph, Ont.

## SIDING

In Ornamental Patterns made from Steel Sheets is just what is wanted for dressing up old buildings or to use on new ones.

We have many designs to select from, including Trimmings and Ornaments, and send free estimates and catalogue upon request. We can also supply Metal Roofing, Ceilings, etc.

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

## PURE-BRED STOCK

### NOTES AND NEWS FROM THE BREEDERS

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

#### Horses

Three well-bred two-year-old fillies were shipped last week to Canada by Mr. Jas. Carruth, of Portage La Prairie, bred by Mr. S. Hutchison, Blairlusk, Alexandria, and sired by Mains of Airies. This is a big-sized good filly which has won prizes at Dumbarton and other local shows. The other two were bred by Lords A. and L. Cecil and Mr. A. Carruth, Crossflat, Kilbarchan, and were sired respectively by Palmerston, a Royal winner, and the Glasgow prize horse Clan Chattan.—North British Agriculturalist.

#### Cattle

During the past few months we have had record prices paid for animals of the various best breeds at Chicago and elsewhere. It now comes the turn of the dairy breeds. At the sale of T. S. Cooper's annual importation of Jersey cattle held at Linden Grove, Pa., on May 30 and 31st last, a record price was paid for the noted bull Flying Fox. He was started at \$4,000, and went up by \$100 and \$400 advances until \$7,500 was reached, when he was knocked down to Thos. W. Lawson, of Boston, for the record price. Flying Fox was the champion winner all over the Isle of Jersey in 1899, and young as are his get on the Island they have swept everything before them at this spring's shows. In the paternal line of breeding, for five generations back, all the sires have been famous prize winners or getters of such. The dam of Flying Fox, Rosette 5th, was first over the Island and her sons have been the greatest of prize winners. She is known in America as Sultana's Rosette and her worth is thoroughly appreciated by every Jersey breeder. To show how popular this bull and his get is with Jersey breeders it might be stated that counting Flying Fox as one the total number of Foxes offered at the Cooper sale was fifty-seven. They realized a total of \$24,530, an average of \$430.35 each, a price never approached for so great a number begotten by one bull.

It is worth noting that several of the get of this noted bull have been bought for use in Canada. Mr. J. B. Kitchen, manager Dentonia Park Farm, East Toronto, was present at the sale and secured seven animals for this noted herd. The names of those purchased by him, the dates when calved, and the prices paid are as follows:

Napoleon's Golden Crown, 165,077, Feb. 20, 1902; sire Napoleon Bonaparte, P. 2745, H. C. \$130.

Flying Fox's Refined, 162116,

July 23, 1900; sire Flying Fox, P. 2729, H. C. \$425.

Nunthorpe's Susanne, 162084, April 24, 1894; sire Nunthorpe, P. 1769, H. C. \$525.

Flying Fox's Brunette, 162085, Sept. 16, 1900; sire Flying Fox, \$190.

Lady Rosette of St. Saviour, 162069, Aug. 21, 1899; sire John Bull, P. 2653, C. \$250.

Mon Plaisir's Cowslip, 162065, April 30, 1899; sire Mon Plaisir, \$350.

Arthur's Golden Fox, 61429, Mar. 20, 1901; sire Flying Fox, \$590.

Mr. Alex. M'Laren, Auchnagie, Ballinluig, has sold to Mr. Richards of Nova Scotia, the third prize Perth and second prize Dublin yearling Aberdeen-Angus bull Volodyovski, 20015, bred at South Ella, and by the Erica sire Equipment, 15410; also the home-bred two-year old heifers Rettemera, 30537 (Rose of Spott family), by Kitchener of Auchnagie, 15618, and Tenamera, 30540, a Fanny of Cullen, by Delamere, 13305. These heifers are in calf to the Ballindaloch prize-winning bull Magersfontein, 18137. At Lord Crofton's recent dispersion sale Mr. M'Laren, jun., acquired for Mr. Richards the fine show cow Witch of Benton, 27583, and her pretty heifer calf Witch of Mote, by Jolly Benton, 16713. The pair now go with the Auchnagie lot across the Atlantic.—North British Agriculturalist.

#### Protect the Animals

Every one who has animals to care for knows right well the great annoyance caused by flies attacking cattle, horses, etc., during the summer. There is no longer reasonable excuse for neglecting to protect stock, especially milking cows, from flies because satisfactory preparations can be easily secured and applied. It is a fact that flies, especially horn flies, cost farmers a tremendous amount of money annually, thus rendering summer as objectionable with flies as winter with cold, when the stock has to be housed and fed by hand. Cows unprotected from flies in the summer do as poorly as those allowed to live around the straw stack in winter. It is not a difficult matter to apply "Horn Fly" oil as often as is necessary and it is sold cheap in convenient form by William Rennie, Toronto.

#### Grooming the Horse.

The following remarks by an expert though written especially for those who have the care of stallions will be found of value in the care of any horse:

#### HORSEMEN! THE ONLY GENUINE IS

## GOMBAULT'S

### CAUSTIC BALSAM.

None genuine without the signature of  
The Lawrence-Williams Co.  
Sole Agents for the  
U.S. & CANADA. GLELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC or FIRING. Impossible to produce scar or Blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circular.  
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

## STOCK

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

### JOHN DRYDEN

BROOKLIN, ONTARIO

BREEDER OF

CRUICKSHANK SHORTHORNS and CHOICE SHROPSHIRE SHEEP

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

### QUEENSTON HEIGHTS SHORTHORNS.

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

HUDSON USHER,

Queenston, Ont.

### Shropshires For Sale.

Six ram lambs, four shearing rams, one two shear ram, one stock ram, ewes all ages. Extra good blood. Prices reasonable.

J. F. BRUNTON, Tara, Ont.

### BRANT'S OXFORD DOWN SHEEP



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

#### OHIO IMPROVED

### Chester White Swine

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

TILMAN E. BOWMAN,  
BERLIN, ONT.

### OXFORD SHEEP

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

John Cousins & Sons,  
Harrison, Ont.



NO HUMBUG'S PRESENT IN-STRUMENTS  
Humane Swine V. Stock Marker and Calf Doherner. Stops swine of all ages from rooting. Makes different ear marks, all sizes, with same blade. Extracts Worms. Testimonials free. Price \$1.50 or send \$1 for trial. If it works, send balance. Pat. U. S. May 9, '02 for 17 yrs. Canada Dec. 17, '01, 18 yrs. FARMER BRUNTON, Fairfeld, Iowa, U. S.



The proper grooming of a stallion is a matter of the highest importance, and invariable kindness should be exercised while performing this duty. Some horses are thin skinned, and the teeth of the curry comb and the sharp bristles of a brush when applied to his delicate organism drive him nearly crazy. A brutal groomsmen takes delight in seeing him wince and dance when these instruments of torture are applied to his thin, delicate skin. A kick or a blow will follow, and perhaps the application of a whip. It is this treatment that makes vicious horses. In the end a spirited horse will fight back. He will resent such treatment. The only instruments of defense he has are his feet and teeth, and in the end he will learn to use them if cruelly treated. Unless he has been abused he will always appreciate kindness. Yelling, jerking, scolding have a bad effect, while a kind, gentle voice will always be appreciated. The writer has raised from colthood scores of stallions, and not one of them has ever been vicious, not one of them would bite or kick. Some grooms would have ruined all of them by making them vicious, but by kind treatment, never allowing a whip to be used in the stall or stable, and by treating them kindly they were always pleasant to handle. And even in serving mares the whip is never allowed to be taken by the groom. It is entirely unnecessary, and a relic of old customs. Kindness, patience, are the first essentials in grooming the stallion. He should be thoroughly cleansed with curry comb and brush every morning, and after being driven he needs another cleaning. The dust and dirt and dandruff should be thoroughly removed from his hair. His legs should be brushed and cleaned, and then be well rubbed with cloths. His feet should be cleaned out every morning, and then after being driven. His feet should be rasped down level and true, and be reshod at least every three weeks. Don't let the blacksmith apply the knife to his feet. Simply remove that portion of the hoof from the bottom that would have been worn away if the horse had been exercised barefoot, and it is better to let him remain barefoot than to let some bungler shoe him. Where there are no rock or stone roads shoeing is really unnecessary. On good dirt roads the stallion can be given the proper amount of exercise in his bare feet. Bad shoeing has caused the ruin of many a horse.

#### Fish Wanted.

A subscriber at Listowel, Ont., wishes to stock his ponds with either Black Bass or Blue Catfish. If any of our readers can give information as to where these can be procured we shall be glad to forward it to subscriber.

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

## SHORTHORNS — YORKSHIRES

I WILL  
SELL BY AUCTION June 24th, at Delaware, Ont.

### 40 HEAD SHORTHORNS 35 YORKSHIRE SWINE

All the cattle are good—some extra.

This will be a rare opportunity to secure some grand old blood Scotch Topped, as well as Straight Scotch For Catalogues address—

Richard Gibson, Delaware, Ont.

MR. GEORGE DICKIE WILL HOLD A SALE FOLLOWING DAY.

## AYRSHIRES AND YORKSHIRES

### FOR SALE

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

JOHN H. DOUGLAS, Warkworth, Ont.

## Pine Grove Shorthorns and Shropshires

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

The following celebrated families are represented:

Misses, Nonpareils, Brawith Buds, Orange Blossoms, Butterflies, Lancasters, Secrets, Clippers, Amaranths, Mayflower, Roan Lady, Minns,

Headed by the famous Marquis of Zinda 157854, own brother to the \$6,000 Marr imported Missie 153, assisted by Sittytton Champion 1660076, Lord of the Manor 160069, and Village Champion (by Scottish Champion). Our new Catalogue will be sent to all applicants.

Our flock of Shropshires is a large one, and choicely bred. We have on hand and for sale a grand lot of rams, also a few ewes, all bred from imported stock.

For further information address—

Manager,  
JOS. W. BARNETT.

W. C. EDWARDS & Co.,  
Rockland, Ont.

The Typical  
Dairy Breed

Good  
Animals of  
Both Sexes  
for Sale



ALVA  
FARM  
GURNSEYS

SYDNEY FISHER, Knowlton, Que.

## Rapids Farm Ayrshires

Reimported by a recent importation of 20 Cows, 2 Bulls, and a number of Calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitio at Toronto, London and Ottawa. **Come and See or Write for Prices.**

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

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

## 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.



# Market Review and Forecast

Office of the Farming World, Confederation Life Bldg.

Toronto, June 16th, 1902.

General trade continues satisfactory and the volume of business doing is good. The stock markets are not as active as a few weeks ago, though the fluctuations in the prices of one or two Canadian stocks, notably the C. P. R. have made things a little interesting. Remittances indicate a healthy condition of trade in the country. Money rules steady at 5 per cent. on call, and discounts on mercantile paper at 6 to 7 per cent.


## Wheat.

As the harvest draws nearer the wheat markets show a generally weakening tendency. Wheat harvesting is progressing favorably in the southern wheat belt and in a few weeks it will be pretty general over the whole winter wheat district. Reports from the spring wheat areas in the United States and Western Canada so far have been satisfactory. Some estimates are already to hand as to the probable yield of wheat. The winter and spring wheat crop of the United States is estimated at 725,000,000 bushels, the Manitoba and Northwest Territories' crop at about 50,000,000 to 55,000,000 bushels and Ontario from 30,000,000 to 35,000,000 bushels, thus making a total estimated yield for Canada and the United States of 815,000,000 bushels. So far as statistics go as to wheat in sight the situation has more of a bullish than a bearish nature. But the satisfactory reports from the growing crop will serve to counteract this. Cable reports have ruled dull. At Chicago wheat was lower later in the week. Locally the markets rule steady. Red and white are quoted here at 76c to 77c, goose 68c to 69c, and spring at 75c to 76c at outside points. On Toronto farmers' market red and white bring 80c to 85c, goose 68c to 70c, and spring fine about 80c per bushel.

## Oats and Barley

The oat market is not without interest just now. A July corner in oats is talked of as being probable at Chicago. Though the new crop gives promise of a big yield it will not be ready to effect any July deal that may be on the tapis. In Canada oats are to-day selling for from 10½c to 13c per bushel more than at this time last year. Oats are in good demand here and firm at 40c at outside points. On the farmers' market they bring 48c to 49½c a bushel.

The barley market is largely



**Trees! Trees!! Trees!!!**

We have a full and complete assortment of Fruit and Ornamental Trees which we offer at lowest prices possible. Farmers wishing to buy stock absolutely first hand and without paying commission to agents, should write to us at once for prices. We also make a specialty of Packing Dealers' Orders.

**WINONA NURSERY CO., Winona, Ont.**

nominal at about 52c per bushel at outside points.

## Peas and Corn

The pea market rules quiet. Quotations here are 76c middle freights and 74½c on Toronto farmers' market.

The corn market rules steady at from 61½c to 62½c for Canadian mixed and yellow west in car lots. Car lots at Montreal are quoted at 70c to 70½c.

## Bran and Shorts

Supplies of bran are reported more plentiful at Montreal where quotations are \$19.00 for bran and \$22.00 to \$23.00 for shorts in car lots. City mills here sell bran at \$19.50 and shorts at \$23.00 in car lots i.o.b. Toronto.

## Potatoes and Beans.

Stocks are decreasing at Montreal and some large sales have been made at reduced figures. The best stocks sell there at 85c to 90c a bag in car lots. Cars on track are quoted here at 75c. On the local farmers' market potatoes bring 90c to \$1.00 per bag.

## Hay and Straw.

The indications just now are for a more favorable hay crop than was looked for a few weeks ago. The growing crop in England is improving though it will not be anything like a full crop. Therefore the demand for Canadian hay there will likely continue and now that our hay has had such a favorable introduction there a more or less permanent market in the old land may be looked for for a large share of Canadian hay. The market on this side shows little change though a slightly easier feeling is reported at Montreal. Quite a few sales have been made during the week at from \$7.50 to \$7.62½ at country points east. The market here rules steady at from \$10.00 to \$10.25 for No. 1 timothy in car lots on track. On Toronto farmers' market timothy brings \$11.00 to \$12.50, clover \$8.00 to \$10.00 and sheaf straw \$8.00 to \$8.50 per ton.

## Eggs and Poultry.

An easier feeling in eggs is reported at Montreal and sales of No. 1 candled stock in large lots at from 13½c to 14c which is fully ½c under the prices of a week ago. Buyers are about through with their purchases for the pickling vats and are looking for still lower values for their cold storage pack. It is doubtful, however, if prices will go lower. Supplies are not plentiful and there is a strong local demand. Here the market rules steady and strong at 14c in case lots. On Toronto farmers' market eggs, new laid bring 14c to 15c a dozen.

The Canadian Produce Co., Ltd., 36 and 38 Esplanade St. East, Toronto, will pay until further notice for live chickens, 8c; for ducks and turkeys, 11c; for geese, 6c per lb. All must be young birds. For hens 4c per lb. Dressed poultry, dry picked except hens, ½ lb. higher. Broilers under two pounds in weight 20c per pound. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c per 100 lbs. of chickens. No thin birds will be taken.

## Cheese

The cheese situation continues healthy with good prospects of as high if not higher prices being maintained than last year. The situation is strong, in fact, so far, there has been no accumulation of stocks, the output going into consumption as soon as it arrives in England. The English make owing to unfavorable weather, is about one month short, which will have to be made up from some other source. While there have been largely increased shipments from Canada as compared with a year ago, the exports from the United States have fallen off sufficiently to counteract this and the total increase from this side so far is only some 700 boxes more than last year for the same

## POULTRY, BUTTER AND EGGS

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

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

**WANTED—BUTTER, POULTRY, EGGS**

We have a large outlet, having Twenty-one Retail Stores in Toronto and suburbs. Payments weekly. Established 1854.

**The WM. DAVIES CO., Limited**

Head Office—Retail Dept.

Correspondence invited. 24 Queen St. West  
TORONTO

period. Though prices are lower now than two or three weeks ago, they are still from  $\frac{1}{4}$ ¢ to 1¢ per lb. higher than last year at this time. Business has been fairly active at Montreal, where from  $9\frac{1}{2}$ ¢ to 10¢ are quoted for finest Westerns. At the local markets prices have ruled about the same with the exception of Brockville where on Thursday there was a decline of from 3-10¢ to 5-16¢ from the week before. Prices have ruled from 9 7-16¢ to  $9\frac{1}{4}$ ¢ with from  $9\frac{1}{2}$ ¢ to 9 9-16¢ the ruling figures.

**Butter**

There has been an active demand for June butter on export account and prices have ruled steady. At some country points east from  $\frac{1}{4}$ ¢ to  $\frac{1}{2}$ ¢ per lb. have been paid over last week's prices. The English market has ruled steady but with prospects of larger Russian and Argentine supplies shortly and an increase in the home make, Canadians may have to face stronger competition later. At present stocks are light and holders are not pushing sales. The Trade Bulletin says this of last week's trade:

"The receipts of butter in this city during the past two weeks, have been very heavy, aggregating 1,947 packages, valued at over \$500,000. Exporters have been free purchasers during the past few days at  $19\frac{1}{2}$ ¢ to 20¢ for finest June creamery, a fraction more having been paid for fancy qualities. To-day, however, sales were reported to us of 1,200 packages of choice Eastern Townships creamery, at 20¢ to  $20\frac{1}{4}$ ¢ over 700 packages of very fine goods at  $19\frac{1}{2}$ ¢ to  $19\frac{1}{4}$ ¢, and 500 packages of good merchantable creamery at 19¢ to  $19\frac{1}{4}$ ¢. Two of the best factories placed their past week's make by wire, to-day, at 20¢. It is claimed that a number of purchases, which have been made recently for English account, were for a future market and not on present cable limits. Be this as it may, the shipments this week will be heavy, and owing to limited refrigerator space on ocean vessels, it is feared that quite a lot will again be left over. Ocean freights to Liverpool it is expected, will be advanced 5¢ to Liverpool next week."

The market here rules steady. The supplies of dairy are large with the quality not of the best. Choice creamery is quoted at 19¢ to 20¢ for prints and  $18\frac{1}{2}$ ¢ to 19¢ for solids. Choice dairy tubs sell at 14¢ to 15¢, lb. rolls at 15¢ to 16¢ and large rolls at 14¢ to 15¢ per lb. in a jobbing way. On Toronto farmers' market lb. rolls bring 14¢ to 16¢ and crocks  $12\frac{1}{2}$ ¢ to 14¢ per lb.

**Wool.**

Wool shows little or no improvement. At Montreal prices are said to be firm and stocks light. Little Canadian wool has been offered there. Quotations for it are  $14\frac{1}{2}$ ¢ to 15¢ for washed and 8¢ to 9¢ for unwashed. Quite a lot of wool is being delivered here but 13¢ is the highest that is being paid for washed wool owing to the general dullness of the trade.

**Cattle**

The cattle markets have ruled active and strong during the week especially for good stuff. Cables are firm and the outlook for prices remaining on a high level bright. At Chicago good to prime steers are quoted at \$7.30 to \$7.90 per cwt. On Toronto cattle market on Friday the run of live stock was not large, comprising 659 cattle, 2,000 hogs, 861 sheep and lambs and 100 calves. Generally speaking the quality of the fat cattle offering was only medium. Trade, however, was brisk, as it had been all week, all the fat cattle being sold early in the morning. Prices were firm all round for both butchers and exporters, especially the latter. But few stockers and feeders were offered and these were bought up at firm prices. The demand for good milch cows and springers still continues.

**Export Cattle.**—Choice loads of heavy shippers are worth from \$6.25 to \$6.50 per cwt., medium exporters \$5.85 to \$6.10. Heavy export bulls sold at \$5.00 to \$5.75 and light ones at \$4.25 to \$4.35 per cwt., choice export cows sold at \$4.85 to \$5.75 per cwt.

**Butchers' Cattle.**—Choice picked lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at \$5.85 to \$6.12 1/2 per cwt. Choice picked lots of butchers' heifers and steers, 925 to 1,025 lbs. each sold at \$5.35 to \$5.60, good cattle at \$5.25 to \$5.40, medium at \$5.00 to \$5.30 and inferior to common at \$3.75 to \$4.50 per cwt. Loads of butch-

**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.

ers' and exporters' mixed sold at \$5.50 to \$5.70 per cwt.

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

**Stockers.**—Well bred young steers weighing 400 to 850 lbs. each sold at \$3.50 to \$4.25, and off colors and those of inferior quality at \$3.00 to \$3.50 per cwt.

**Calves.**—At Toronto market good to choice calves bring \$4.50 to \$5.50 per cwt. and \$2.00 to \$10.00 each.

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

**Sheep and Lambs**

The market for sheep and lambs rules about the same. Everything sold readily at quotations. Spring lambs are worth from \$2.50 to \$4.75 each. Sheep are steady at \$3.75 to \$4.10 per cwt for ewes and \$3.00 to \$3.25 for bucks.

**Ye Old Firm of Heintzman & Co.****The Artistic Touch**

loses all its magnificence on an ordinary key board. How much more does the ordinary performer need a good instrument?

We offer you the best in the piano makers' world to-day.

"The sympathetic richness and brilliancy of tone in the Heintzman & Co. piano and its wonderful singing quality, combined with the delicate ease of touch easily place this instrument in the front ranks of the leading manufacturers of the world."—Nutini, famous Italian Pianist.

Ye Old Firm of . . . . .

**HEINTZMAN & CO.,**

115-117 King St. West, - - - Toronto.

**Hogs**

There has been no change in the price of hogs during the week and while deliveries have been large prices have ruled steady at \$6.87½ for select bacon hogs 160 to 200 lbs. each and \$6.62½ per cwt. for lights and fats.

For the week ending June 21st, the Wm. Davies Co., Toronto, will pay \$6.87½ per cwt. for select bacon hogs, \$6.62½ for lights, and \$6.62½ for fats.

The Trade Bulletin's London cable of June 12th, re Canadian bacon, reads thus:

"The market is weak and lower, holders of Canadian bacon having had to make a further concession of 5s in order to induce business."

**Horses.**

A fairly good local trade is reported at Montreal chiefly in light drivers and heavy drafts. All orders for South Africa remounts have been cancelled. But it is expected that the horses on hand will be sent to England. Montreal quotations are:

Carriage horses.....\$175-\$350  
 Heavy draughts..... 140- 250  
 Light roadsters, drivers  
 and saddles..... 100- 250  
 Common stock..... 50- 80

There was no special change in business at Grand's last week. Prices were about the same as the week previous and about the usual number were disposed of. A couple of large sales are announced for this week when business will no doubt be brisker.

**Pea Harvester**

Messrs. Tolton Bros., of Guelph, whose advertisement appears in another column, advise us that they are having a largely increased trade for their far-famed pea harvesters from the United States as well as from all parts of the Dominion. They are the originators of a successful working pea harvester and are still in the lead with their new combination divider, patented 1901, which is a decided success.

From the fact that they have always been the leaders in their particular lines we predict for them a largely increased trade for 1902 and intending purchasers will do well to see their machines before placing their orders elsewhere.

**\$25 Round Trip to Denver.**

Via Chicago & North-Western R'y. from Chicago, June 22 to 25 and July 1 to 13. Return limit Oct. 31. Correspondingly low rates from all all po ints east. Favorable stop-over arrangements. Two trains a day to Denver. The Colorado Special (only one night en route), leaves Chicago 5.30 p.m. daily. The best of everything. Write for booklet "Colorado illustrated." For rates and reservations apply to your nearest ticket agent or address, B. H. Bennett, 2 East King street, Toronto, Ont.

# Horn Fly Oil

**Keeps flies off animals,  
Kills vermin,  
A splendid disinfectant.**



Sold in Cans (with directions)—  
**QUART, each, 25c.; doz., \$2.70. GALLON, each, 60c.; j doz., \$3.50**  
 BY EXPRESS OR FREIGHT AT PURCHASERS' EXPENSE.

**Ask your dealer, or send direct to** **WM. RENNIE, ADELAIDE and TORONTO.**  
JARVIS STS.

## Scales

**FOR EVERY PURPOSE  
SPECIAL PRICES  
EASY TERMS**

By a special arrangement with one of the oldest and most reliable scale manufacturers in Canada we are able to furnish Dairymen, Stockmen and others with Scales of any style or capacity at exceptionally close prices, and on small monthly payments. This arrangement has been made in the interest of the readers of THE FARMING WORLD, and no special inducements can be offered to anyone whose subscription is not paid in advance.

### Dairy Scale

**With Double Beamed Brass  
Sliding Poises.**



This Scale has a double beam with 100 lbs. on each bar. It is much used for weighing milk, the tare of the can being taken by one of the poises and the other poise left free for weighing the net amount.

| CAPACITY.  | PLATFORM.      |
|------------|----------------|
| 600 lbs.,  | 16 x 25 inches |
| 1000 lbs., | 17 x 26 inches |

If you need a Scale, large or small, for any purpose, fill out the following blank and mail to us. We can save you money. Anyway it won't cost you anything to get our terms:—

THE FARMING WORLD,

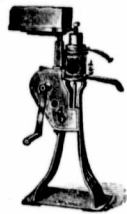
Confederation Life Building, TORONTO.

Please send me particulars, price, terms, etc., for a Scale which will weigh about.....lbs., and suitable for weighing.....

NAME.....

P O .....

It is understood that this is not an order.



The Records show  
Competitors Admit  
Users Testify

**that** THE U. S. SEPARATOR  
STANDS WITHOUT A PEER.

Its record at the Pan-American Model Dairy of average test for  
**50 CONSECUTIVE RUNS** . . . . .0138  
has never been equalled by any other make. This together with its many  
other points of excellence and superiority, such as  
*Easy Running, Durability, Enclosed Gears, Safety,  
Self Emptying Bowl, Stability, Beauty, etc.,*  
proves very conclusively that **THE U. S. EXCELS ALL OTHERS.**

Write for free descriptive catalogues. 272  
VERMONT FARM MACHINE CO., - - BELLOWS FALLS, Vt., U.S.A.

There is no duty on U. S. Separators shipped into Canada.

**TRADE "DAISY" MARK**

Can be fitted with adjustable Brakers as shown in cut.

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



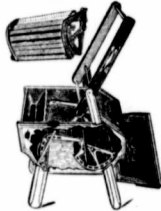
**EVERY BUTTER WORKER**

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



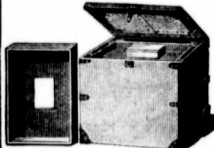
**VOLLMAR IMPROVED PERFECT WASHER.**

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



**BUTTER SHIPPING BOX.**

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



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

**THE BEST BUTTER**

Can only be secured by close attention to every detail. Much sold as very Ontario Agricultural Coll. ment for wrappers is only imitation, and quite liable to impart a bad flavor to butter. We import large quantities of the genuine article direct from Germany. We supply it plain or printed. Write for samples and prices.

Sentinel-Review Co. Ltd.,  
B x 724, Woodstock, Ont.

**The "NATIONAL" Cream Separator**



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

**Superiority of the "National"**

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

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

Capacity of No. 1.—330 to 350 lbs. per hour.  
Capacity of No. 1 A—450 to 500 lbs. per hour.

**Give the "National" a Trial.**

—GENERAL AGENCIES—

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

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

**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**

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Should insist on receiving a monthly statement of the milk delivered from his farm. Our Ideal Milk Ticket is used by all the best factories. 25c. a hundred. \$2.00 a thousand.

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