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THE Farming World

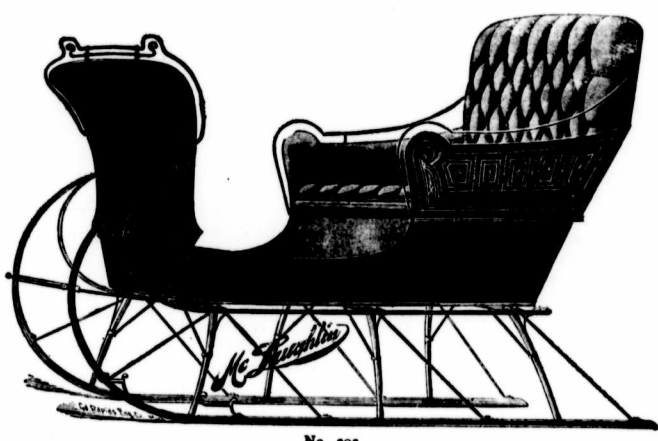
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The Farming World

For Farmers and Stockmen

Vol. XIX

DECEMBER 3rd, 1901.

No. 23

Let Us Hear From You.

THESSE long evenings afford a splendid opportunity to the readers of The Farming World to send their experiences in connection with the past season's operations for publication. We are always open for letters dealing with any features of farm work or giving new experiences. Let us then hear from you. Never mind about the grammar, the spelling or what you think is poor writing. Fear of these things keeps many a good thinker from being a good writer. What we want are facts, gathered from your experience during the summer. Something about the crops, how the dairy panned out, what you are doing in beef cattle, sheep, swine or poultry. There are also topics presented every week in The Farming World that many a farmer could give some good hints upon. A long letter is not necessarily the best. A short, concise statement of the case will do. Send it along. Let us hear from you.

Improved Cheese Factory Methods Urgently Needed.

Elsewhere we give a short summary of a few dairy meetings held in Eastern Ontario at which a few of the speakers told the dairymen some very plain facts which it is hoped they will take into serious consideration. The cheese branch of our dairy industry is in rather a serious plight at the present time. The market is dull, the Englishman does not appear anxious to buy our cheese and everything points to a rapid falling off in the consumption of cheese in Great Britain.

But what are our dairymen doing to remedy matters? Several authorities have recently stated that this year's cheese is not of as good a quality as a few years ago. Prof. Robertson, at Ottawa, a few days ago, and Mr. Ruddick, who is the chief dairy expert of the Dominion Department of Agriculture, and who should know something about our cheese, at the meetings already referred to, both state that Canadian cheese shows some deterioration in quality during the present season. Mr. Ruddick ascribes this gradual deterioration in quality to the warm competition between small factories and to the low wages paid which is driving good men out of the business and at the same

time offers no inducement to the young man with energy and brains to learn cheese-making. Another reason advanced by Mr. Zufelt was that the compelling of every maker to give a guarantee as to quality only tended to help the poor maker who would sign anything so long as he got a job and if he were forced to make good losses on bad cheese would get even with the factory in some other way.

If the causes assigned by these experts for this lack of improvement in quality are correct then a very grave responsibility rests upon the dairymen of this country. Are they going to stand idly by and see the industry that has been their pride and the source of a large share of their prosperity for a quarter of a century deteriorate and eventually lose its hold entirely on the English market? Surely not. But why hesitate so long about making the improvement in factory buildings, etc., which every authority during the past five years has claimed must be done if Canada is ever to maintain her present position, let alone advance to greater things and a higher standard of excellence in her cheese products. There is no money in putting it off. In fact, as Prof. Robertson pointed out to the Ottawa dairymen recently the expenditure of \$400 required to put the average curing room in good shape could be made up in a single season by the improvement in the quality of the cheese and the saving from shrinkage in hot weather. Our dairymen are therefore losing money every day by neglecting to make the necessary improvements referred to.

To unite the smaller factories into larger and better equipped establishments is a much harder task even than to bring about improvement in the factories we have. But Mr. Ruddick's reasoning is quite clear. A small factory cannot pay sufficient wages to employ a good maker, neither can it be run as economically to the patron as the larger factory. A little co-operation on the part of these small factorymen could effect a great deal in this direction. These small factories, which are, perhaps, more numerous in Eastern than in Western Ontario, were built years ago and have now reached a stage when they must be replaced by new and better ones. Would it not therefore, be the most economical and common sense plan for two or more of these small factories to unite and put up one new and thoroughly up-to-date building that

would serve all? We think it would and would strongly urge it upon the dairymen interested.

As to the wages paid cheese-makers we quite sympathize with the movement for advancement in this line. Good men are not going to remain in a business at which they can barely make a living. A cheese-maker who guarantees to make a first-class quality of cheese in the average Canadian cheese factory under present conditions as to equipment, quality of the milk supplied, etc., is undertaking a responsibility that no individual in any other business or calling would assume for a moment unless paid extremely well for so doing. This question as well as that of wages should be fully discussed at the dairy conventions this winter. In the meantime we would be glad to have the views of dairymen and others on the points raised.

Coarse Grains at a Premium

One of the striking features in this fall's market conditions has been the high prices for coarse grains. Not for many a year have prices run as high as during the past month or two for oats and peas. The latter is now selling at from 10c to 12c per bushel higher than wheat while oats are fully 20c per bushel higher than at this time last year, and notwithstanding those high prices the demand keeps increasing and prices moving upward. The following table from the Trade Bulletin shows the prices paid last year and this for four of the leading feeding stuffs:

	1901	1900
Oat	51 1/2c. to 59c.	30c. to 39 1/2c.
Peas	81 1/2c. to 85c.	60 1/2c. to 67c.
Barley No. 2	54 1/2c. to 55c.	45 1/2c. to 47c.
Wheat	\$ 8. to 18.50	\$11.50 to \$15

The cause of these high values, is not because these crops have been a failure in Canada this year. The failure of the corn crop in the United States and the consequent demand for other kinds of feeding stuff has had something to do with it. In addition to this there has been an extra demand from Great Britain where the prices for peas and oats have advanced rapidly during the past month. The large shipments of oats sent to South Africa have also had something to do with advancing prices for that commodity.

However, the farmer need concern himself but little as to the cause of these high prices so long as he is able to take advantage of

them. They may perhaps have some effect upon the cattle and hog trades in preventing the proper finishing of the animals for market. And yet it would be a calamity if such were the case. The quality of the fat cattle offered to-day is not so good that they can be put upon the market in any less finished condition. And yet many a farmer will hesitate about putting these high priced feeds into his animals unless he sees a prospect of good returns. But it will pay to finish all cattle well whether feed is dear or not. Nothing should be half done.

Canadian "Stores" Agitation

The English correspondent of the Chicago Live Stock Report, in dealing with the proposition to admit Canadian store cattle into England, contends that to remove the embargo in reference to Canadian cattle, it would be no more than fair to give cattle from the United States the same privilege, as they claim to be without disease as well as Canadians. Then if the embargo were raised to both countries, where would England be if disease were to break out in Canada and the United States. There would be practically a meat famine, as the English farmer would have gone out of breeding store cattle.

The writer evidently does not understand Canadian conditions at any rate. In a country stretching over a wide area, such as is the case with the Dominion, it would be impossible for any disease, and particularly pleuro-pneumonia to spread to all the cattle in the country. If it did break out in any one section, which there is no prospect of it doing at the present time, it would be practically impossible for it to spread over any large area with our present system of quarantine and veterinary inspection.

Quarantine Regulations Again.

A few days ago it was reported that Secretary of Agriculture Wilson, for the United States, accused the Canadian Government of failure to keep a Canadian veterinarian in England to apply the tuberculin test to cattle shipped for use in Canada or in transit to the United States. Hon. Mr. Fisher, though doubting the correctness of the statement from Washington, explains that the Canadian officer who has been testing cattle has been withdrawn from England only because no further shipments are expected this season. It is very unusual for any number of cattle to be shipped from England to this country during the winter and so it was not thought necessary to keep an officer there all the time. Besides, Dr. Rutherford, before leaving, made arrangements with three competent men in England to do the testing in case any cattle were shipped. The Washington authorities were notified of his withdrawal and there does not

appear to be any grounds for the accusation made. The Washington officials, however, have stated that they are not prepared to accept the test of the three English officials referred to, and consequently, any cattle that may arrive in Canada during the winter destined for the United States will be re-tested by the Canadian officials on landing on this side. But the United States have their own official in England and he is at liberty to test any cattle shipped to Canada for the United States.

Truly, the administering of the quarantine regulations between this country and the United States requires a lot of careful and judicious handling. The present action of Secretary Wilson, if he be correctly reported, seems like making a "mountain out of a mole hill." When officials are so sensitive on these points, there seems little hope of the breeders getting what they are entitled to, that is the abrogation of all tuberculin test regulations between Canada and the United States.

The Value of a Good Sire.

Many farmers fail to appreciate the real value of a good sire in any herd. In cattle, for example, who can measure in dollars and cents the value of a good bull. It is impossible to do it except in the abstract. Many will, no doubt, consider that the price (\$7,500) reported to have been paid for the Flatt bull, Choice Goods, by Robins & Sons of Indiana is a most extravagant one, and more than the real value of the animal. But consider a moment and try to estimate in dollars and cents the real value of this bull to the herd of these American breeders. Robins & Sons are among the leading breeders of Shorthorns in the United States. We would, therefore, expect them to have a number of females of individual excellence. These females are bred to this noted bull, who, if he is all he is claimed to be, will impress his own good qualities on his get. The result will be a higher type of animal in the young stock of the herd and an increased value to each offspring that will, in a comparatively short while, more than make up for the large price paid. Such has been the experience with other noted sires, provided they were mated with animals having individual excellence to back up a good pedigree such as Belvedere, Duke of Connaught, etc.

The same line of reasoning will hold good with less noted and much cheaper sires, such as the ordinary farmer could afford to purchase. When systematic breeding methods are followed the influence of any good sire will live for years after the animal is dead and gone. In selecting a sire the farmer must buy for the future, not for the present. While the influence of a good sire makes for the building up of any herd, it must not be forgotten that the influence of a poor sire

has the opposite effect. If it is difficult to measure in dollars and cents the value of a good sire it is just as difficult to measure the loss sustained by using an inferior sire. For this reason the difference in price between a good and a poor sire cannot be definitely stated. A man may pay \$50 for a bull and his influence on his herd may mean a loss of hundreds of dollars in the years to come, while his neighbor may pay \$500 for a good animal and gain many times that amount in the years to come from the introduction of this better food. The value then of a really good sire cannot be measured in dollars and cents.

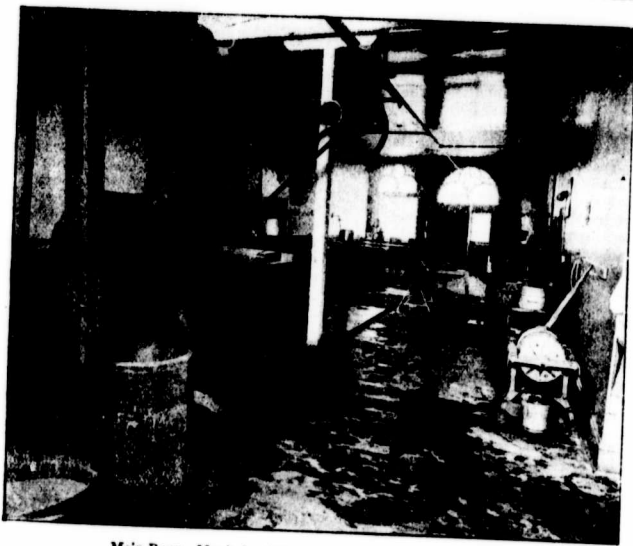
The Demand for Horses.

As shown in our weekly market review the horse market reports are not very encouraging. When the dealer is asked how trade is, he will tell you it is dull, and that there is very little business doing. The sales of horses in Toronto recently have been mostly of second-hand drivers and general purpose horses for which low prices only are obtainable. This creates the impression in the country that trade is bad and the outlook not promising. And so it is for the general run of horses, the class that is most plentiful in the country to-day. And even these, though quotations appear low, sell better perhaps than they have done for several years back.

But there is another side to this question that puts the present condition of the markets in an entirely new light, and that is that dealers are prepared to pay good prices for first-class horses of the right type, such as heavy draughts, high-class carriage and saddle horses. But these types are not to be had in large numbers. In fact, it is hard to get them at any price, so scarce a commodity are they throughout the country. This makes trade dull and confines the operations of dealers of the commoner class of horses of which there are far too many in the country.

Not long since, good carriage horses were quoted at Montreal at \$175 to \$350 each, and heavy draughts at \$125 to \$225 each. A week ago, Grand's Repository, in this city, had some enquiry for heavy draughts, weighing from 1,700 to 1,800 lbs. each, but this class was so scarce that trade was small. Good animals of this weight would be worth \$200 each at Toronto. These are certainly good prices that would pay the farmer well who has horses of this type to dispose of.

The lesson for the farmer in all this is, breed and raise the class of horses in demand to-day and for which good profitable prices are obtainable. In our opinion, there cannot be too many of the right sort produced for many years to come. And in any case, it will pay to raise the best types rather than the poorer ones that are all too plentiful.



Main Room, Manitoba Government Dairy School, Winnipeg.
 (For particulars see our "Western Letter" in last week's issue.)

Our Western Letter

Cattle Shipments Over. Many Cattle Held Over on Ranches. Forestry Work, Moving the Crop. Freight Rates.

The year is drawing to a close and business men in all lines are making a special effort to show as large a balance as possible on the right side of the books. We are expecting in the course of the next two weeks the Government crop report which will settle just how many bushels we have raised this year and what the average yield has been. Already the cattle exporters have announced the result of the season's operations. The last shipments are now en route to the old country. The total number of cattle shipped east from the ranches and from points in Manitoba figures up to about 36,000 head, and there were 29,500 head, approximately shipped east from Winnipeg for the old country market. The firm of Gordon, Ironside & Fores exported some 15,500 head from Western Canada; their total business including those exported via Chicago, from Ontario, and those slaughtered en route totals up to over 32,000 head. Mullins and Wilson handled 10,000 head of Western Canada cattle and other firms about 4,000.

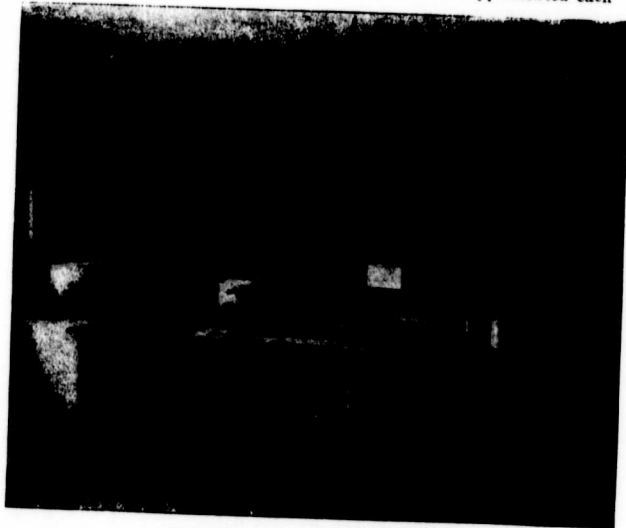
This has been a fairly good season for the exporter but the ranchers find themselves with \$100,000 worth of cattle on hand which they had hoped to dispose of this year. These are mostly animals of a dairy type and will need another year's feeding to put them in shape. It is said that they were mostly Ontario stockers, dairy calves saved from an early death by the kind hearted westerners. The time will soon come when our

ranchers will see that the calf which the Ontario dairyman will kill at birth rather than spend money on raising it, is a poor investment. Had our ranchers realized another \$100,000, as they expected, there would have been a nice little surplus for the purchaser of Ontario pure bred stock. But having the Ontario dairy stockers to feed for another year, the Ontario breeder will be out that much on his Shorthorns.

The rainfall having been more than ordinarily heavy the past season, grass was of less nutritious quality though very luxuriant. As a result the cattle were not ready for shipment at as early a date as usual. Certain difficulties in securing cars during the early part of the season further delayed shipments, but the vigorous action of the shippers, spoken of some weeks ago, resulted in unprecedented facilities, so that the season closes as early as usual and with very few cattle on hand fit for shipment.

The Forestry Commissioner Mr. E. Stewart, is in the West looking over the work done during the year and mapping out operations for next season. The Forestry Branch is in the way of accomplishing great good in this country. Manitoba is not as many suppose a treeless land. There are great forests of spruce and poplar, mixed in some cases with birch, elm and oak in various parts of the province. But it is a land of treeless farms. The emigrant whether coming from Eastern Canada or from Europe looked with contempt upon the small poplar and other trees of which small "bluffs" dotted the prairie in all directions. They made no effort to maintain these but cut ruthlessly everything that interfered with the square outlines of the fields. Hence, especially in Western Manitoba, there are today very many farms without a stick of timber.

The Government (Dominion) proposes to remedy this. Every farmer who makes application to the commissioner stating that he has land prepared for tree planting is listed to secure the trees to plant it. His land is inspected and it found to be suitably prepared he receives trees of the kind most suitable for his soil. The usual area is one half acre, and for this he requires about 1,300 trees. This quantity will be supplemented each



Testing Laboratory, Manitoba Dairy School.

year if the proper cultivation is given, and application made for more trees. During the past season about 50,000 trees have been planted on this plan and there are 500 applicants for next year which will mean the distribution of nearly three quarters of a million of trees. The trees planted are chiefly cotton wood, maple, elm, and ash, all of which do well here. They are set out in blocks or in "wind-breaks" of twenty feet in width or more according to the preference of the individual. The inspection of plantations each year by a forestry official is a very important element of the plan and the one thing that ensures its successful issue.

The moving of Manitoba's crop is to be facilitated by the use of locomotives from the Intercolonial Railway. The rolling stock of the C. P. Ry., and Can. Nor. Ry. having proven inadequate the government has loaned them five engines and promises more if they can be spared. The lighthouses on the lakes will be operated up to the middle of December and a great effort will be made to keep the lakes open up to that date, to enable us to move the millions of bushels that still await transportation.

Some idea of the magnitude of the work of the railways this year may be gained from the fact that from the 1st of September to the 16th of November nearly 16,000,

000 bushels of grain were shipped, while during the whole year from Sept. 1, 1900 to Sept. 1, 1901 only a trifle over 13,000,000 were handled. The amount of grain now stored at country points is placed at 9,000,000 bushels and there is storage room for as much more.

The memories of boyhood had inclined us to believe Ontario the halcyon land where every man loved his neighbor and competition kept corporations in check. Right sad are we to find that even there the people have grievances. We of the West clamored in and out of season for railway competition that we might benefit from the quarrels between the mighty. But lo! the mighty refused to quarrel. Then did we try Farmers' Institute agitation, and thereby the Institutes were diverted into unprofitable discussion, their time and money wasted and no benefit secured. Now our government has essayed another plan whose success we hope to see in the near future. But we watch with interest the effort of our Eastern brethren in a cause that enlists our every sympathy—the equalization of freight rates.

Note—Later reports from Ottawa credit the Minister of Railways with the statement that the Intercolonial has no locomotives to spare, all being required to transport the large business now being carried on by the Government railway.—Editor.

and the maker must be thoroughly competent. Many farmers do not appreciate the value of skim-milk. It is a most valuable stock food. The production of butter does not run down the land on a farm as much as the growing of grain and the manufacture of cheese.

Instructor Zufelt was convinced that there is great need of more concentration of instructor's work. One of the greatest injuries to the cheese trade at the present time was that not enough wages were paid to keep and encourage good men to go into the business of cheese-making. Incompetent men are employed in many factories and are doing a great deal of harm. One cause of low wages was the bitter competition between small factories. He believed a great improvement would follow if makers were not forced to sign guarantees. The effect of such guarantees is that factories will employ the cheapest man so long as he will guarantee the quality of the cheese. Another effect of these guarantees is that the patrons feel that all the responsibility is taken off their shoulders. The patron would take better care of the milk if he knew that he himself would suffer loss by supplying poor milk. Then the inferior quality of the cheese made by poor makers has the effect of keeping the price of cheese down. Mr. Zufelt then related the following cases which created a sensation in the meeting:

"I know one cheese-maker not one hundred miles from here, who, as a reward for his whole season's work, has the magnificent sum of thirty-five cents coming to him.

"Now you need not expect that cheese-makers, when you treat them like that, are not going to try to get even with you.

"It may surprise you to know that some cheese-makers, to prevent a cut are in the habit of weighing out a few extra pounds of cheese for the buyers in each box. The extra weight makes up to the buyers for any defect in the cheese and they do not make any complaint but you are out just that much cheese.

"Then, also, if a maker has a vat of poor cheese, do you suppose he is going to send the cheese to Montreal knowing that if he does he will be docked? Not a bit of it. He will dispose of that bad cheese even if he has to throw it down the well or bury it.

"Then as you demand that they shall make as much cheese from as little milk as possible, it is a simple matter for them to deduct a little from the amount of milk you are entitled to.

"You can hardly blame the makers for endeavoring to protect themselves in such ways when you refuse to pay them a fair living wage."

The annual convention of the Dairymen's Association of Western Ontario will be held at Woodstock, Ont., on January 15 and 16, 1902. The last convention held in Woodstock was a most successful one.

Some Pointers for Dairymen

Some of the dairymen in Eastern Ontario have adopted a very wise course in their endeavors to advance the dairy industry in that section of the province. Several of the local cheese boards including South Finch, Morrisburg, and Van-kleeck Hill, held local conventions at the close of the market operations which were addressed by several dairy experts, including President Derbyshire, Prof. Dean, J. A. Ruddick, J. W. Hart, L. A. Zufelt, Ed. Kidd, M. P., A. W. Woodward, and others. In these conventions the local dairymen had the assistance of the Eastern Dairymen's Association.

Prof. Dean after giving a lot of valuable information on the dairy cow, her feed and care emphasized the great necessity of cleanliness and more care in handling the milk. If dairying were not the best business in the world the men who are in it would have been bankrupt years ago on account of their poor business management. Excellent results were obtained at the college this year in curing cheese at a temperature of 40 degrees.

The earlier the cheese is put in cold storage the better. The buyers who examined the four cheese we made this year at the low temperature, placed the cheese as follows. That put in cold storage immediately it was made was the best, that put in cold storage at

the end of one week, second; that put in at the end of two weeks, third; and that put in at the end of three weeks last.

Mr. Rudduck who talked in a very pointed way, emphasized the necessity of lower temperature for curing cheese. Experiments conducted by his department showed that cheese cured at 65 degrees and lower is worth at least half a cent a lb. more than cheese cured in ordinary temperature. He was forced to confess that the average quality of the cheese made to-day is not equal to what it was a few years ago and the chief reason is the strong competition between so many small factories. Then cheese-makers are not paid large enough wages. No cheese-maker should be held responsible for the quality of his cheese unless it can be shown that he has been culpably negligent in his work. Large factories give better returns to the patrons than small factories. Next year there will likely be seventeen ships fully equipped with cold storage facilities to carry cheese to Great Britain. The dairymen of New Zealand are much ahead of us in many ways. They go in for large factories, well constructed and well equipped. Good cheese-makers are engaged and are paid good salaries.

Supt. Hart discussed winter butter-making. To make good butter the factory must be well equipped

Poultry Development

What Leading Buyers Require—The Farmers' Opportunity
The Demand and New Varieties

By A. C. Gilbert, Manager Poultry Department, Experimental Farm,
Ottawa

Poultry development throughout the Dominion has taken place within two or three years, more rapidly than its warmest advocates dared to foretell. To such an extent, indeed, that we now have farmers in many instances sending eggs in winter to city customers, or hatching them out for early broilers. But in both cases striving to produce the egg or chick when it is worth the most. Not a few farmers have a poultry plant of up-to-date poultry house, or houses, incubator room and brooder house. Mr. A. S. McBean of Lancaster, Ont., may be cited as an instance. He has not only a modern outfit but a competent young farmer as manager of his poultry department.

Then we have the larger purchasing companies in Toronto, notably the Canadian Produce Co., the Toronto Poultry and Garden Produce Co., the Wm. Davies Co., the purchasing agencies of that extensive poultry and game dealer of Liverpool, England, Alderman Riddin, besides other poultry buying firms in Ontario and elsewhere.

IMPORTANT STATEMENT BY PURCHASERS

All the purchasers call for a thoroughbred of Wyandotte, Rock or Orpington type and which make rapid flesh formers. And the earlier the chicken the better for both farmer and purchaser. On a recent visit to Toronto the writer had the pleasure of meeting the managers of the Canadian Produce Company and the Toronto Poultry and Garden Produce Co. Mr. Wilson, manager of the latter enterprise, made some very important statements which cannot fail to be useful to producers throughout the country. The company at present do solely a home business. Mr. Wilson stated the sooner the farmers got into the practice of selling their birds by the pound the better would it be for both seller and buyer. None of the large purchasing concerns that he knew of bought by the pair but by the pound. The sellers of good birds of 3 to 5 lbs. each in this way got better value. It was only the breeders of poor birds who yet desired to sell by the pair. He had found the people who sent good birds quite satisfied with the prices they received. The average weight of the birds received by them was 4 to 6 pounds per pair. Some birds, when they came into their hands, were such skeletons as to be unfit for sale to their ordinary customers. The previous week they had sold a number of these birds at 15 cents per pair in order to get rid of them.

Another bad practice on the part of some shippers is that of feeding

their birds at, or soon before, the time of shipment. In such cases there is sometimes a shrinkage of 16 to 18 pounds in a crate of 25 or 30 birds, between time of shipment and weighing in Toronto. And all expedition is used in weighing the fowls after arrival. Even when the crops are empty there is a shrinkage of 5 to 9 lbs. in the number of fowl named. Shippers would make it a rule to send away their birds with empty crops. But the quality of the birds was certainly improving, notwithstanding the miserable scrubs sometimes received. "Why," said Mr. Wilson, "we are told, and doubtless correctly, that the English market is an unlimited one, but it can also be said that our home market for the superior quality is also very large and is year by year increasing. Our new laid eggs, we had no trouble in selling them from our farm and guaranteed as such, at 30c per dozen during the summer months, while the eggs brought in by farmers were selling at ten and fifteen cents per dozen here on the market. Indeed we could not get eggs enough from our farm to sell at the high price named."

Dr. Boulton, manager of the Canadian Produce Co., who purchases for shipment to England only, was well satisfied with the quantity of chickens coming in and stated that they were very much superior in quality to those received in previous years. The company were putting two tons of poultry per day into cold storage to ship to England at the proper season. They prepared birds with light colored legs, but above all a three months' old chickens. If they could secure 500 tons of birds for shipment they would be well pleased to receive that quantity. He considered the business of poultry shipment to the British market as only in its infancy. Both managers attributed the better quality of poultry coming in as a result of the instruction given to farmers by Dominion and Provincial experts at special and Farmers' Institute meetings.

AN OPPORTUNITY EASY TO TAKE ADVANTAGE OF.

The hatching and rearing of a three months' old thoroughbred chicken of Rock, Wyandotte or Orpington breeds to 3½ and 4 lbs. weight each, by the middle or end of July or August, should be a cinch for our farmers. By means of incubators and brooders a farmer should be able to raise a large number in early May and so have them not only in quantity but of uniform age. His pullets would be early layers and his three months' cockerels ready for sale at the

higher price of midsummer, a price certainly higher than that of the fall, when the hen hatched chickens are coming into market. In this connection it may be said that unless the hens lay in winter they are likely to be late setters, and even under the most favorable circumstances the number of early setters is always limited. The Experimental Farm report of last year, 1900, fully treats of this subject, as well as the proper rearing of the chicks, and those desirous can, on application, have a copy sent without charge.

NEW VARIETIES COMING TO THE FORE.

With the increasing demand for the bird with the light leg and light flesh, although the latter can to a certain extent be effected by food, we find new varieties coming to the fore. But the new comers must be revenue makers in both winter and summer. It must be a kind of extraordinary merit to take front place from Plymouth Rocks and Wyandottes, which have for so long filled the dual requirements of winter layer and rapid flesh maker. The comparatively new comer that is bound to take a front place is the Buff Orpington. They are of English origin, and like anything that comes from that country with a recommendation, are fully worthy of it. They are of large size, hardy, rapid growers, even to put flesh on, with legs and flesh of the desired light colors. The females are said to be excellent winter layers. When these birds are more generally held by fanciers and farmers, both eggs and birds will be cheaper and they will surely come to the fore on their merits. The breed that is best qualified to fill the requirements of home and foreign markets is the one that will find public favor. The farmers should have nothing to do with scrubs. To breed them is only a waste of time.

Chicken Fattening.

One crate of chickens at the Government Fattening Station at Smithville, Ont., has made a remarkable gain in weight. The birds were Plymouth Rocks, and when first placed in the crate their aggregate weight was 39 lbs. At the end of four weeks and two days of feeding the total weight had increased to 79½ pounds or a gain of 40½ pounds for the lot, or of 3 pounds 5 ounces per bird.

Central Canada Fair.

The directors of the Central Canada Exhibition Association have decided to hold the Exhibition earlier next year, the dates chosen being September 5 to 13. This will be right after the Toronto Exhibition. This change was made because the directors consider that the Exhibition would be favored with better weather if held earlier than in the past.

Correspondence

Our Stocker Trade.

Editor THE FARMING WORLD:

I have seen several articles in your paper and also others with regard to the stocker trade. The injury to the welfare of the country which the shipping of the young cattle out of the country will work, the slackness and shortsightedness of the farmer, and lastly, and doubtless the cause of the whole agitation, the inability of the professional feeder and rich farmer to buy stockers from his poorer brother unless he pays up for them. This last clause is in my opinion the key note of the whole thing, and because some rich and therefore influential men have expressed themselves publicly all the would-be teachers of the benighted farmer must follow suit.

If the Canadian feeder wants the Canadian stockers he can have them, provided his patriotism will allow him to pay as much as his Yankee cousins.

Though I am quite willing to admit that from a national standpoint this export of young cattle is wrong, for there is plenty of feed in Ontario to fatten all stock produced, and if it were not so, send them to our own Northwest.

Still I maintain that good farming consists in confining oneself to a particular line of work to which both the man and farm is adapted, and which will at the same time increase the fertility of farm and also the balance in the bank without consideration of what is of national importance to the country.

Now many men have proved that these requirements of good farming may be provided in raising stockers. They realize that it requires considerable skill, labor and capital to fatten animals successfully, also that it is proportionately much more expensive to fatten two or three animals than where a larger number are fed, so many men, especially those not financially

strong, keep a larger stock of cows and sell the young stock to professional feeders. This is more particularly true of many dairy farmers whom I know, when they may have a herd of good cows and by using a beef sire they can turn out very good stockers. Now, in the case of a man who keeps 25 cows, a not unusual number in many sections, it would mean 25 cows, 25 calves, 25 yearlings, 25 two-year-olds, and in most cases 25 fattening three-year-olds, as very few export cattle are under this age. Now it can be easily seen that this is a stock entirely beyond the means of the average farmer, and if he were to fatten his own stock he would have to cut his number of cows to about six or seven.

In such cases many farmers consider it better to devote all their energies to producing milk, breed the cows, with exception of a few best to keep up the herd, to beef sires, and sell the young stock to a man who understands the beef business. This surely is in accordance with the specialization of modern methods.

And all would have been well if the feeder did not want too large a share for himself, which allowed the U. S. dealer to come in, but the farmer does not want to sell to him in preference to a Canadian. It is simply a matter of dollars and cents, and as I said before, the Canadian can have them if he pays the money.

Of course there is a certain class of scrub cattle and cattle bred from dairy sires, to which these remarks do not apply as the country is well rid of them at any price as they will never pay to fatten, and it is doubtful if they ever paid the man who raised them, but it is for him to decide whether he will knock them in the head at birth, veal them or make stockers, to which our Yankee cousins are heartily welcome.

G. F. M.

Breeders' Notes

By Stockman

OLD TROTTERS.

Lady Suffolk, one of the greatest of the early American trotters, did her fastest mile when over 12 years old. Goldsmith Maid beat the record and made her mile in 2.14 when she was 17 years old. Maid S., when she placed the record at 2.08, was 11. Ethan Allan was on the track and a winner when 17, and Flora Temple till she was 16. Goldsmith Maid, when 21 years old trotted a mile in 2.14½, very near her fastest record.

LONDON CAB HORSES.

The favorite color for a London cab horse is brown, bays next, and

greys are not in favor. A handsome cab man will not take out a grey if he can help it. Why there should be an objection to grey horses is not clear. One explanation is that the light hairs float back and show on dark clothing. On the other hand, grey is preferred for a four wheeler. If ever a housemaid calls a cab, she will, if she has a choice, pick out a grey horse. This is understood by the trade.

NORMAN HORSES.

The descendants of the horses introduced into England at the Norman conquest are the Cleveland Bay, Yorkshire Coach, Norfolk

Hackney and the Suffolk Punch. These are all descended from the Norman horses. They are all found on the eastern side of England and are all of a chestnut or brown color.

BRAN.

To get the best results from bran fed to horses, it should be fed dry. A bran mash has little feeding value, but is useful as a purgative in the event of illness. The damper a food is the less saliva becomes mixed with it on its way to the stomach, and the less fully it is ground by the teeth. If, however, the horse is fed the bran dry, it will arrive in the stomach fully ground and well saturated with saliva.

U S COWS.

The United States has upward of 17½ million milch cows. Iowa heads the list with a million and a half. Texas has seven hundred thousand, Missouri, Kansas, Wisconsin and Nebraska have about half a million each. The value of the whole dairy product of the United States is put at 500 million dollars, nearly \$30 per cow. Great Britain has rather more than 2½ million cows.

SALT.

A cow requires about four ounces of salt daily. Cows in full milk may, with good results, be fed more, and the quality of the milk is improved thereby.

•••

Horse Feed Wanted

An Ontario Subscriber writes: "Not being acquainted in your city I take the liberty to enclose you a card for the addresses of a few of the leading mills and produce merchants of Toronto who handle mill stuffs and horse feed. I have a contract for supplying a large number of teams, and oats have gone out of reach and other grains are scarce here so I am compelled to get a substitute. By replying promptly you will confer a favor to a constant reader of your valuable Journal."

If any of our readers have feeds or mill stuffs to dispose of we shall be glad to forward particulars to subscriber.

In a primary school in St. Louis the other day the teacher sought to convey to her pupils an idea of the uses of a hyphen. She wrote on the blackboard, "Birds-nest," and, pointing to the hyphen, asked the scholars "What is that for?" After a brief pause, a young son of the Emerald Isle, piped out, "Please, ma'am, for the bird to roost on."—Exchange.

The South Australian Farmers' Co-Operative Union, Limited.

Franklin Street, ADELAIDE, SOUTH AUSTRALIA.
Capital, 250,000 shares of £1 each.
Total payments for the year ending June 30th, 1901, £286,177.

Net profit on paid-up capital, 26½%.
The Union aim at SUPPLYING AGRICULTURISTS WITH MACHINERY AND IMPLEMENTS DIRECT FROM THE MANUFACTURERS, and are open to take up agencies for first-class lines. Correspondence invited. October 10th, 1901.

The Sugar Beet World

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

Edited by JAMES FOWLER

Sugar Beetlets.

Beet pulp makes an excellent stock food.

In feeding pulp much depends upon the age and condition of the pulp, and upon the condition of the stock and suitable grounds for feeding.

The amount of pulp which can be fed profitably, is reported by all who feed for meat, as all the animals will readily consume in addition to a portion of hay, straw and grain.

Pulp fed with grain, hay or straw produces a very well marked condition of the meat; a dreaded effect of the pulp is the white color given to the carcass when dressed.

A four year old steer will eat about 80 pounds of siloed pulp per day.

When fed in connection with other and dry feed it not only serves to keep the digestives in a healthful condition, but adds materially to the store of actual food substance.

No foreign odor or flavor is noticeable in the milk except occasionally when the beet pulp is fresh. None at all when feeding siloed pulp.

On good thrifty beef cattle the production of meat is superior to that of hay fed cattle. The meat is of fine flavor, good color and very white as to fat.

When eating beet pulp the daily consumption of hay varies from 6 to 16 pounds, depending upon the amount of beet pulp in the ration, and the size of the cow.

Stock fed on pulp fatten very rapidly after the first 30 days.

Cattle and sheep eat the pulp very rapidly, there is no difficulty getting them to eat it after the first few days.

Peterboro.

Mayor Dennis exultant, and the cause of his joy is a letter received from Prof. A. E. Shuttleworth, Berlin, Government Superintendent of sugar beet experiments which have been carried out throughout Ontario during the past summer. Enclosed was a summary statement of the experiments conducted in this locality and a comparison with those of other places. Prof. Shuttleworth further states that full details will appear in printed report, but those of the statement which he forwards places Peterborough in the lead of all others in regard to the quantity of sugar in beets grown and the purity of the sugar, while the yield per acre is also away up. With an average of 17.3 per cent. of sugar, 93.6 per cent. of purity and 16 tons 180

lbs. of beets per acre, Peterborough's record far surpasses the standard upon which the sugar beet factory can be operated, namely, 12 per cent. of sugar and 80 per cent. of purity. The results of the individual experiments are also given and the information thereby afforded may be taken as eminently conclusive that sugar beet culture for manufacturing purposes could be made a successful and profitable industry in this vicinity. The report, moreover, comes at a most propitious time, when such information was one of the necessities in deciding as to the location here of a gigantic beet sugar factory. In order to make it clear, it may just be repeated that beets showing 12 per cent. of sugar with a purity of 80 per cent., are considered of sufficient standard to allow the manufacture of sugar on a paying basis. It will, therefore, be seen what Peterborough's excellent record means. The second highest place in the test was Port Perry, with Lindsay next, but neither of these places possess anything like the facilities of Peterborough as a site for a factory. It is, therefore, seen why the result will cause great satisfaction here, and in the light of recent and existing experiments should encourage and hasten the development of prospective enterprises.

THE INDIVIDUAL RECORD.

The following two tables give the record made by each of those in this district who took samples that grew on the experimental plots. The first table shows the quality of the beets as regards sugar and purity, and the other gives the average weight of the beets and the yield per acre in each case:

SUGAR AND PURITY

	Sugar.	Purity.
G. W. Mann	17.1	91.8
Thos. Stothart	16.9	96.2
T. T. Milburn	16.5	89.7
A. McGregor	17.3	93.8
C. D. Moore	16.8	90.3
J. Middleton	17.3	91.0
E. Sanderson	17.7	90.3
T. Hooper, neglected patch		
H. G. Webber	18.2	90.5
G. W. Hatton, experiment abandoned		
William Reed	17.5	90.2
R. Hanbidge	17.9	93.0
Dr. Savigny	17.6	85.3
Alex. A. Stuart, experiment abandoned		
Wm. Stuart	18.1	93.4
R. Devell	18.0	90.5
J. Smithson	18.5	91.1
Wm. Garbutt	17.3	89.2
A. Carpenter	16.4	87.3
W. Rutherford	16.2	92.4
J. W. Lucas	16.4	87.6
Peter Dawson	17.2	90.5
John Riddell	18.2	91.4
Wm. Eyer	17.1	87.0

Two Thousand Feeding Lambs.

Messrs. Eugene Fifield, agriculturists for the Bay City Company, Michigan, and Geo. Boyden, the well known stock man of Delhi Mills, have received 2,000 Montana lambs and will feed them on beet pulp. Mr. Fifield has 1,000 at his west side farm, near Bay City, and 1,000 are at the stock farm of Mr. Boyden. These gentlemen are no novices with stock and both have experimented with the pulp and molasses in stock feeding.

Deep Plowing and Beet Culture.

BY THOMAS PECHA.

It is due to sugar beet culture alone that more attention is being paid to deep plowing of the soil. The action of the soil enables the effect of fertilization, and hence vegetation itself. The action of the soil, in turn, is dependent upon thorough plowing, the manner of which is governed by the objects to be obtained. These objects are different and must be governed by the properties of the soil and the condition in which it has been left by the preceding crop.

One of the first labors to be performed is to plow under the stubbles, which should be done immediately after the previous crop has been harvested. The time before the soil has become dried out should be utilized and excessive drying of the lower strata prevented by interrupting the action of capillarity. The sooner this work is done, particularly in dry seasons, the better is the moisture utilized which was retained in the soil by the shading from the leaves of the preceding crop, but is later evaporated rapidly after the surface layer has been uncovered. It is usual, before plowing under the stubble, to harrow the field thoroughly, which not only serves to pull up the weeds and destroy the foreign seeds while germinating, but also breaks up the living roots and exposes them to the sun and the winds so that they will speedily rot. It follows that the field should not be plowed immediately after harrowing, if circumstances permit such delay.

In order to reduce the drying out of the subsoil as far as possible, it is not advisable, where the soil is heavy, to roll down the field after plowing under, as is generally done for the purpose of causing the stubble to rot quickly. This operation is radically wrong, since it is the direct opposite of that which we wish to obtain by plowing under at the proper season. By pressing the soil down tight the admission of air is limited more

than where the soil is light. In the latter case excessive aeration should be restricted in order to admit the moisture which is necessary to induce decomposition. From what has been said it follows that heavy soils should only be harrowed, and a suitable implement be used, so that the stubbles are not pulled out to the surface.

It goes without saying that the conditions are entirely different where plowing under is done at the wrong season, where, instead of a loose surface, we find dry clods or a wet furrow, which it is necessary to make soft by a roller after they have become dry, since the stubbles that have been plowed under would be slow to decay if covered by the big clods. In such a case rolling is a necessity, but this should be an exception caused by plowing being done at the wrong time, and should not be taken as the standard for normal conditions. It would be foolish not to roll a light soil, but it is necessary to harrow it again when the soil begins to pack. If it is desired to make the weed seeds germinate, any kind of soil, after plowing under, should be so prepared as to afford the seeds the best opportunity to germinate, that is to say, the surface should be made mellow and solid by harrowing and rolling so that sufficient moisture will be provided from the lower strata in case of insufficient rain, and thereby the weeds induced to come up quickly, whereupon they should be destroyed by harrowing and repeated plowing.

If stable manure is plowed under it should be put into a second furrow, which should not be deep, in order to allow access for the air and sufficient moisture and heat, so as to allow more rapid decomposition and carry the fertilizing substances into those parts which are developed by the succeeding deep plowing. In plowing in manure, the condition of the soil should be carefully considered and plowing in very dry or wet weather always avoided. Only the winter furrow can be plowed through under unfavorable circumstances, turning the soil to the greatest possible depth.

Where the gradual deepening of the soil has been introduced methodically, it is permissible to plow to the full depth without having cause to fear that dead layers will be turned up. Where this is not the case the plow should be followed up by a subsoil plow. Such soils as can be prepared for deep culture only by deep subsoiling for many years are not beet soils. Nevertheless, it is advisable to use the subsoil plow for a while where beet culture is being first introduced, and upon loam soils, if the soil has not been previously deepened sufficiently. In good old beet soils we plow to sixteen inches, but the winter furrow is generally made thirteen to fifteen inches. Where beet culture is being introduced it is sufficient to turn the soil ten to twelve inches,

but in each successive plowing the soil should be systematically deepened. In dry periods it is sometimes necessary to devote longer work to the soil, since the soil cannot be plowed to the full depth all at once. This is the case particularly on heavy soils which are liable to pack. Since a team of six is difficult to handle, and it is impossible to get a good furrow at full depth, it is advisable to plow with a common plow 4 to 6 inches, and to follow it up at once with a subsoil plow. The dead furrows should be at once plowed apart by six furrows in order to level the field perfectly, and this plowing apart should under no circumstances be put off until spring time, since the beet would remain very backward in such places.

Deep culture is absolutely necessary in sugar beet growing, since the beet requires a soil that has been loosened to a great depth and well mixed, so that the beet may at all periods of growth and in all strata of the soil find abundant nourishment of a readily assimilable character. The soil must admit air if we would have nature work in all layers and prepare the assimilable substance. The beet having deep roots, must be enabled to penetrate into the lower strata. A beet which grows on heavy soils that have been plowed shallow and are poor in material, which is easily assimilated, with a hard, dry subsoil, will become woody and difficult to work in the factory. The influence of the soil is the greater, the more vigorous are the layers in which the beet grows its roots, and the better is the physical condition of the soil. A perfect mechanical breaking up of the soil and the subsoil is most advisable, since it is only in such case that the nutritive matters stored up in the soil can be made available by the influence of air, moisture and heat, and be taken up by the rootlets, which the beet is enabled to put forth without hindrance.

Deep plowing is a safeguard against excessive moisture and prolonged rain, since it allows the excess moisture to run off into the subsoil. It keeps the winter moisture and takes up the summer moisture, and thus equalizes dry and wet periods. The temperature is much more uniform in all layers, and air and moisture are admitted more freely. The food becomes more easily assimilable, the soil remains loose, free from weeds, the beet grows better and the crop is improved both in quality and quantity. Beets that had been planted in fields which were plowed deep gave crops that for nine years averaged 26 per cent. greater. The effect of deep plowing, especially with steam plows, is noticed through three to four years. In the dry year, 1889, in the Dominion of Keckemet, in Hungary, beets planted according to the usual methods gave no crop at all, despite repeated plantings, whereas, beets planted in deep

plowed fields gave a good average crop.


Deep plowing is an element by which the great differences in dry years can be equalized. A majority of observations shows later ripening in deep plowed fields, which proves a greater production, since, in order to form organic substances, there is need not only of a larger amount of nutritive matter, but also of heat and light, and, hence, more time. Although these increased crops, which are based upon official data, cannot be looked upon as the result of deep culture alone, since intensive manuring also plays a great part, still deep plowing must be looked upon as a principal factor, since, without this element, the most abundant manuring cannot produce such crops. Of course, plowing alone cannot supply nutritive matter to poor soils, which lack the nourishment necessary for the growth of the beet, but it is possible by poor culture totally to destroy the productivity of rich soils. Any neglect of the suitable moment, not only in plowing, but in all the succeeding work of cultivation, will make itself felt, not only by necessitating expensive labor which, however, can never entirely make up for the defects, but by diminishing the crop both in quality and quantity.—Beet Sugar Gazette.

Germany.

The shadows deepen, as the reports of the beet crop and the work of the beet sugar factories of Germany become known, and the official government reports prove to all the world, that Germany did not consume as much sugar last year as heretofore, and that as a result of under consumption and lost markets abroad, there is today a great surplus of unsold beet sugar on hand here, and we cannot help but feel that the tenth anniversary of the beet sugar industry in Germany, is at the same time the high water mark of that great industry that had so small a beginning just one hundred years ago.

As has been foreshadowed in these columns all summer, there is little variance in the beet crop this year, as compared to former seasons. The tonnage is a trifle

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lighter per acre, but the sugar contents are somewhat better, so that the actual sugar output will not vary much from that of 1900. It is, therefore, an assured fact, that this year's sugar production will help to swell the stock of sugar already on hand, and that what was left over from last season, and what will be manufactured this fall and winter, will prove a positive and immense overproduction. And where, in the seasons gone, the government and beet growers and manufacturers association, combined to teach the farmers of Germany how to get the very best results from sugar beet culture, for mutual benefits, there is already an undercurrent, to advise curtailing the acreage devoted to sugar beets for 1902. At least one leading agricultural magazine has already advised the beet growers and manufacturers to get together and determine just how much the beet crop be reduced next year, in Germany, in order to rehabilitate German beet sugar prices, by just meeting the actual market demands.

That Settled It

The man who did odd jobs in a certain country school gave up his place the other day. When asked what was his reason, he said: "I'm honest and I won't stand being suspected. If I find a pencil or handkerchief about the school when I'm sweeping, I give it up. Every now and again, however, the teacher, or someone who is too cowardly to face me, will put a slur upon me. Why, a little while ago I saw wrote on the board, 'Find the least common multiple.' Well, I looked from the cellar to the garret for that multiple, and I wouldn't know the thing if I met it. Last night, in big writing on the blackboard it said, 'Find the greatest common divisor.'

'Well,' I says, 'both of them things are lost now, and I'll be accused of stealing 'em.' So I'm off.—Unique Monthly.

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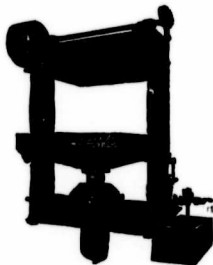
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The Agricultural Gazette

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

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

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

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

A member of the Sheep 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 profitable 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 5th 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. He data will be published in the most condensed form.

A. P. WESTERVELT, Secretary,
Parliament Buildings, Toronto, Ont.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, secretary, Live Stock Association, 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 good man for general farm work, must be reliable and trustworthy, and would be expected to do a good share of the teaming around the farm, and at times do the chores usually connected with farm work. Would prefer married man with small family, would employ by the year. No. 864. a.

Situations Wanted.

Wanted—A position on a dairy farm near Toronto, by a first-class man, who was raised on a farm and who is a good milker. No. 960. a.

Wanted.—A position by a man 32 years of age, who has had 16 years' experience in farm work. Willing worker, good ploughman and handy with cattle. Wages expected \$175 a year, to include board and washing. No. 956. b.

Wanted.—A position on dairy farm by an unmarried man 30 years of age, who has had considerable experience and understands cattle and all kinds of dairy work. Can give references. No. 958. b.

Wanted.—A situation by married man, aged 35 years, uses neither tobacco, liquor nor profane language, used to general farming, dairying

and stockraising. Would like house, fire wood and small garden furnished. Can give good reference. No. 959. b.

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

Provincial Winter Fair, Guelph, Dec. 10 to 15, 1901.

The Guelph City Council has undertaken to see that everyone attending the fair will be able to procure good accommodation. An office for this purpose will be opened in the City Hall adjoining the Winter Fair Building, and persons wishing accommodation should go to this office immediately upon coming to Guelph. The City Hall is two blocks distant from the C. P. R. station and one block from the G. T. R. Every effort will be made to see that first class accommodation is provided for everyone.

DAILY PROGRAMME.

Monday, Dec. 9th.

Dairy cattle in stable by 2 p. m.
Dairy test commences at 6 p. m.

Tuesday, Dec. 10th.

9 a. m.—Continuation of dairy test, poultry feeding with crumming machine.

10 a. m.—All live poultry in coops.

1 p. m.—Judging to commence on poultry. All live stock in stalls or pens.

3 p. m.—Judging to commence on cattle, sheep and bacon hogs.

3.30 p. m.—Meeting Turkey Club (Council Chamber).

5 p. m.—Poultry feeding.

6.45 p. m.—Meeting Experimental Union (Agricultural College).

7.30 p. m.—Meeting Barred Rock Club (Council Chamber).

8.30 p. m.—Addresses, Bacon Hogs.

Wednesday, Dec. 11th.

8 a. m.—Killing Bacon Hogs.
9 a. m.—Poultry Feeding, continuation of judging in all departments.

10 a. m.—Meeting Directors Barred Rock Club.

1.30 p. m.—Address, Beef Cattle.
2 p. m.—Annual meeting, Barred Rock Club.

3.30 p. m.—Addresses, Sheep, killing cattle.

5 p. m.—Poultry Feeding.

7.30 p. m.—Public meeting (city hall).

9 p. m.—Conclusion dairy test.

Thursday, Dec. 12th.

8 a. m.—Killing Sheep.

9 a. m.—Poultry feeding, addresses on poultry, judging swine carcasses.

1.30 p. m.—Annual meeting Ontario Poultry Association.

2 p. m.—Address, Swine Carcasses.

3 p. m.—Judging Cattle Carcasses.

5 p. m.—Poultry Feeding.

7.30 p. m.—Address, Cattle Carcasses.

Friday, Dec. 13th.

9 a. m.—Lecture Dairy Cattle, judging sheep carcasses, poultry feeding.

10.30 a. m.—Address, Sheep Carcasses.

1.30 p. m.—Competition killing and dressing poultry.

2 p. m.—Auction sale, cattle, sheep and swine, carcasses and dressed poultry.

5 p. m.—Close of exhibition.

Unless otherwise stated meetings will be held in the lecture room in the Winter Fair Building.

A. W. Smith, A. P. Westervelt,
President. Secretary.

Live Stock Wanted.

Mr. J. J. Ferguson, Prof. of Animal Husbandry at the Agricultural College, Lansing, Michigan, writes to say: "I wish to purchase for our college here, 2 typical Ayrshire cows; 2 first class Guernsey cows, and an all-round Jersey cow." Any of our readers having such animals for sale kindly communicate directly with Mr. Ferguson.

Hereford Breeders

The annual meeting of the Canadian Hereford Breeders Association will be held at the Royal Hotel, Guelph, at 10.30 a. m., on Wednesday, December 11th. The annual fee is then due. Henry Wade, Secretary.

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Corn is King

(This discussion followed the address published last week.)

SILOS.

Q. Would a round silo 10 feet in diameter and 25 feet high be large enough for 15 head of cattle?

A. A round silo 10 x 25 feet would hold about 40 tons of silage, which would give 15 head of cattle about 28 pounds per day for six months. A silo 12 x 25 feet holds 56 tons, which would provide 40 pounds per day for six months, or 30 pounds per day and a few pounds left over for feeding when the grass has failed.

Q. What would be the probable cost of a concrete silo the size mentioned?

A. A concrete silo of 56 tons capacity would cost probably \$100.

Q. Do the users of silos think it would pay to borrow money to put up one?

A. The extra number of cattle a man can keep, and the better condition in which he can keep them, by using silage instead of either dried corn or roots and hay, will easily justify a man in borrowing money to build a silo.

Q. Would it be any advantage to have the bottom, say, six feet underground?

A. Not unless it would be in a bank, so that the bottom would be a little below level with the stable door.

Q. Does the use of ensilage give milk or cream a bad flavor?

A. Decidedly not. After several days' experience in feeding ensilage I can say that where well-matured ensilage is fed in proper proportion with other foods, that there is not the slightest danger of taint.

Mr. Cassleman. I do not feed ensilage. Am sending cream to Montreal, and by the terms of my contract am prohibited from using ensilage, as the Montreal dealers claim that it does flavor the milk. We use clover hay, some corn fodder, roots and for grain food use gluten meal from the starch factory. At Cardinal we get gluten meal at from \$16 to \$18 per ton, and it gives us greater value than any grain food we can buy.

Q. Which will give the greatest value per acre, roots or corn?

A. Taking the Province as a whole, it is generally admitted that corn gives the greatest value for food per acre. Especially is this true in the southern portion of the

Province, where roots are not nearly as good in quality as they are farther north. In some localities, especially where they have early frosts, roots may give the best results.

One in the audience: I find on my land that turnips give better crops than corn. I cannot ripen corn.

Dr. Harkness: You do not plant early enough. The people in this locality think they can plant corn in the middle of June. I find after several years' experience that one succeeds perfectly here when planted on drained land, not later than May 15th. I prefer planting early for corn. If you get an early frost the corn will come on again, and gives a much earlier crop than if planted late. The Southern Mammoth Sweet gives me good results in ensilage, and I was sorry to hear the delegates run down my old friend, the Southern Mammoth Sweet.

Q. Is there any difference in the nutritive value of the different varieties of corn?

A. Generally speaking, there is in our locality a strong feeling in favor of the Flint varieties, as being the most nutritious, pound for pound. But the variety that gives the greatest yield per acre, other things being equal, will prove most valuable. We have found the "Compton's" Early to give good satisfaction.

Q. What variety of corn does best with you?

A. "Improved Leaming" has done the best with me.

Q. At what stage of growth should corn be cut for silo?

A. Just as it is glazing. I supply milk to Hamilton, and if the corn gets too dry there is not the same amount of milk in it. I would have been thousands of dollars better off if I had adopted the silo years before I did, but I was prejudiced against it. I heard so much against it, but now I know better.

Q. Is ensilage satisfactory food for supplementary pasture in summer? Will it keep?

A. Yes, decidedly. In fact, it is a necessity to all who are engaged in dairying in southern Ontario, but to give best results it should be fed with wheat bran, pea meal, or some food rich in nitrogenous matters, to balance the ration.

Mr. Hunter: Ensilage is necessary at all times of the year for dairying, but the summer silo should be high, with small diameter. Last year I sowed some cow peas for soiling, and I found them very satisfactory, and I shall plant more next year.

Q. How much corn do you sow to the acre?

A. Prof. G. E. Day, Guelph: Very little over a peck.

Q. What variety of corn do you prefer for the silo?

A. The largest variety that will reach the glazing stage before being cut. This will vary with locality. On the college farm, principally Wisconsin Earliest, White

Dent and Mammoth Cuban are grown. The latter is somewhat later than the former, and is also a heavier yielder.

Q. Which is the best plan, to erect a silo of cement or wood?

A. Cement makes a good silo, and, if properly constructed, will last an indefinite length of time. So far as keeping the silage is concerned, wood will answer about as well as cement, and is preferred by some. The great advantage of the cement silo is its durability.

Q. What size silo would be required to feed four cows for eight months?

A. It is doubtful whether a satisfactory silo could be made for such a small herd. It is estimated that there should not be more than about five square feet of feeding surface for each cow, and, for the best results, a silo should not be less than twenty feet high. It would be practically impossible to meet these conditions for four cows.

Q. Do you put water on your corn when you put it in the silo, and how do you cover it?

A. No. If the corn has become very dry or ripe before putting into the silo, watering would be an advantage. If we require the silage for immediate use, we do not cover it at all. Otherwise, we usually cover with chaff and wet the chaff thoroughly. A few oats sown in the wet chaff will be of help.

Q. What is the cheapest and best silo?

A. This is difficult to answer. The round stave silo is undoubtedly the cheapest, and is apparently giving good satisfaction. The concrete silo is the most durable.

Q. Will not a crop of mangolds be as profitable as a crop of corn?

A. Jas. McEwing, Drayton: No. Q. How long will ensilage remain good?

A. Four years, if the silo is airtight.

Q. Do you believe it pays to build a silo?

W. C. Shearer, Bright: Yes, preserving corn in silo has been proven satisfactory and the best method. It does not improve its feeding qualities, but it preserves them without any deterioration whatever.

Q. How often would you feed cows daily that are fresh in milk?

A. We feed hay at 6 a. m., ensilage and grain at 9 a. m., half bushel mangels at 12 a. m., ensilage and grain at 4 p. m., and fill their mangers with straw at 7 p. m. On this feed they keep at a June flow of milk.

Q. How often would you water cows daily in winter?

A. It is better to have water trough or basin in their stalls, and let them drink at will. I have noticed that they always drink some after each feed.

Q. Have you any remedy for the cut worm?

A. We have adopted a three-year rotation, namely, oats, clover and corn, and the land does not

lie sufficiently long in sod to make the cut worm a pest.

Q. Do you plow your corn stubble and root ground in the fall, after the crops are off?

A. G. C. Caston, Craighurst: Most decidedly not. Neither corn stubble, root nor potato ground. I simply work it with the disc in the spring to make a seed bed. This land is clean; the cultivation of the corn and roots leaves it clean, and the available plant food is near the surface, just where it is wanted. By this system you have a firm soil underneath, so the little rootlets of the grain can get a grip on it, and the surface tilth makes a mulch that prevents the escape of moisture, and retains it where the roots of the plants can get it. My experience is that you get a better crop, of better quality, by this system than by any other, and you are sure of a catch of clover.

Q. Do you have any trouble with the corn stubble?

A. No, but I would if I plowed them up. Just run over them with a land roller in spring, and there is no trouble with them.

Q. Do you believe in rolling the land?

A. Well, all the use I have for a roller is to make a smooth, even bottom for harvesting and moving afterwards. If you seed down I believe the land should be gone over with a light smoothing harrow after rolling. It would leave the land in a better mechanical condition to control the moisture. In fact, I believe, in view of the severe drouths we have to contend with often here—forests are being so rapidly cleared away; our streams and wells are drying up; evaporation of soil moisture goes on far more rapidly than in early times; we may make up our minds that we will always have drouths more or less to contend with in this Province—I say, in view of all this, I believe the time has come when we should study as one of the very important problems in our agriculture, how best to counteract the effect of drouths, and I believe we shall soon be cultivating our grain crops much as we do our corn and roots. Irrigation is out of the question, and the next best thing is the prevention of evaporation, by frequent and shallow stirring of the surface soil.

Q. What is the cheapest and best silo?

A. Andrew Elliott, Galt: The cheapest silo is the tub. When permanence is considered a cement one is preferable. One of eight sides is the best shape, being stronger in proportion to the thickness of the walls, and it also has no sharp angles.

Q. How often do you cultivate corn?

A. F. A. Sheppard, Queenston: As often as it needs it. That is, always after every shower, to break the rust, so as to check evaporation, and frequently during dry weather to bring up moisture from below.

Q. Do you consider corn (grain) in the silo as good as husked grain?

A. It costs less to put the grain in the silo than to husk it. Being made succulent in the silo, the grain is more digestible than the hard, ripened grain. The expense of chopping it is also saved.

Q. How do you plant your corn?

A. W. C. Shearer, Bright: In hills, and for three reasons: (1) I obtain more ears, (2) Cleans the land better, (3) The corn stands straighter in heavy storms.

Q. Will hilling corn make it ripen more quickly?

A. R. Thomson, St. Catharines: It may cause the corn plants to turn yellow and ripen prematurely, but there will not be as much feeding value in the stalks, neither will there be the weight of ears.

Q. What is the better way to feed corn?

A. If you can mature it, put it in silo, or cut and stock when dry and stand sheaves on end in the barn. Stalks are then in good condition to be cut up.

Q. How would you cure seed corn?

A. Let the corn ripen as well as possible, then strip the husks back. Tie the ears together and hang up to the roof near the stovepipe, or in an open shed until thoroughly dry.

Q. Would you sow a large late variety to get a large quantity of fodder?

A. No; I would plant a smaller earlier variety, as there would be more and better food value in the smaller number of tons.

Q. Do you prefer using planters to covering corn with the hoe?

A. I prefer the hoe if ground is damp and cool, and the planter if very dry.

Q. What do you cover the ensilage with?

A. Chaff, sprinkled with water.

Q. What would you use to prevent crows pulling corn?

A. I put, say, half a bushel of corn in an old sugar pot or tub. Sprinkle with a little hot water, then drop about a tablespoonful of coal or gas tar over the corn and stir for five minutes, until every grain has a slight coating of tar.

Q. What kind of corn do you sow?

A. Mr. John Hamilton, North Brant: Leaming and common Indian corn for this locality.

Q. How do you plant?

A. Mostly in hills, but some is sown in rows three to three and one-half feet apart.

Q. What is the value of the silo?

A. There are many advantages, as succulent food, and economy in feeding.

Q. Would it not be an advantage to plant Indian corn with larger varieties?

A. Mr. Vansickle: No, not if with a larger growing variety you can get plenty of matured ears.

Q. Do you turn cows on rape?

A. Mr. Pake: No, it taints the milk.

Q. How far apart do you sow rape?

A. Same as turnips.

Q. When do you sow?

A. Middle of June.

Q. What precautions do you take in turning on rape?

A. Turn cattle in with full stomachs.

Q. When?

A. Middle of September.

Q. Do you ever sow rape among corn?

A. No; I sow fall wheat on corn ground.

Q. Is there any after growth to rape?

A. Yes, from the early sown, but not the late sown.

Mr. Moxie: My experience with rape was that I had a lot of good feed. Have plowed some under as green manure, with good results. Have grown in drills and sown broad-cast. I think it is quite a hard crop on the land.

Q. What variety of corn would do best for the section of North Lancaster?

A. D. M. McPherson: After a long experience I have found Cloud's Early Yellow gives the best result in both grain and stalk. We formerly raised the Mammoth Cuban and it gave us great yields, but it was inclined to grow hard and woody. For exceptionally rich soil we have found a variety of sweet corn known as Mammoth Sugar to excel all other kinds.

Q. What is the best corn for the District of Rockland?

A. W. C. Edwards: We have experimented for years, and find that we can grow varieties of corn that we thought could not be grown in this district. Our best varieties this year were "Wisconsin Earliest White Dent" and "Salzer's North Dakota." After growing corn for twenty-five years in drills, we this last year grew it in hills, and had the heaviest and most reliable crop we ever grew. It is possible to grow corn successfully to much higher latitudes than most people are aware of. I have matured corn perfectly at points one hundred miles north of Ottawa.

Q. In a country like this, where we bring corn to perfection, is there any use of a silo?

A. Mr. McLeod: I have had a silo for years, and I will say this, that a man with fifty acres can achieve greater net results with the aid of a silo than a man with one hundred acres can without it. In fact, I would sell fifty acres and do with half the land rather than do without a silo.

Q. How do you keep the crows off the corn?

A. D. C. Anderson, Rugby: In the spring when you kill pigs, place some offal on the snow about forty or fifty yards from the buildings. The crows will light upon it. Shoot six or eight of them. Throw them into an out-of-the-way corner where the corn is just peeping through. Put a leg here, a head there, and stick a wing in the ground. This is the most effectual way of keeping the crows off.

The Farm Home

The Old Fashioned Boy.

Oh, for a glimpse of a natural boy—

A boy with a freckled face,
With forehead white 'neath tangled hair
And limbs devoid of grace.

Whose feet toe in, while his elbows flare;

Whose knees are patched all ways;

Who turns as red as a lobster when

You give him a word of praise.

A boy who's born with an appetite,
Who seeks the pantry shelf

To eat his "piece" with a sound-
ing smack—

Who isn't gone on himself.

A "Robinson Crusoe" reading boy,
Whose pockets bulge with trash;

Who knows the use of rod and gun,
And where the brook trout splash.

It's true he'll sit in the easiest chair,

With his hat on his touseled head;

That his hands and feet are every-
where,

For youth must have room to spread.

But he doesn't dub his father "old man,"

Nor deny his mother's call,
Nor ridicule what his elders say,

Or think that he knows it all.

A rough and wholesome natural boy

Of a good, old-fashioned clay;
God bless him, if he's still on earth.

For he'll make a man some day.
—Detroit Free Press.

The Grumbler.

There is probably no disease to which man is exposed that causes so great discomfort to himself and all those with whom he comes in contact than the disease of grumbling. In the early stages of the disease he shows a tendency to be irritable when the weather is dull or when the sun does not shine, and when the sun is too hot and the weather too dry, or there is more rain than he in his wisdom, deems enough. This stage is quickly followed by ill temper on his part when the porridge is too thick or too thin, or too hot or too cold, or if the food is not just as his fancy would desire. In this stage it is perhaps his wife who most frequently suffers. If she be a sensible woman she will not notice him much during this period; if she be an ordinary woman, she will, no doubt, give him a proper "dressing down," which will only tend to increase the malady. In various stages the disease is of

an intermittent character, and the cold growls are frequently relieved by warmth and caressing sweetness. In the chronic stage he not only growls about the weather, the meals, but also about everything which he meets in his daily occupation, and his imagination becoming affected produces for him many subjects about which to complain. So far as I can learn, the germ which produces this disease has not been identified and no reliable remedy has been found to destroy it or to lessen its power.

The disease in woman is usually of a slightly different though not less disagreeable character. Though if taken in its earlier stages or before it becomes chronic, a course of nerve treatment will frequently effect a cure, or at least, make the attacks less frequent. A woman becomes depressed and irritable, the noise of the children makes her cross, she is easily annoyed, she finds fault with every little mistake made by either husband or children, and soon nothing that is done is in her opinion done properly. She finds life a burden and endeavors to make it a burden to all with whom she is surrounded. She becomes so accustomed to scolding that she does not notice the danger of her condition, until her disease has so firm a hold that no cure can be effected. The disease, unfortunately, seldom kills, but it lingers on with its victim often into extreme old age.

Apparently, too, it is hereditary and also contagious. One notices it appearing quite frequently in very young children. Its first symptom is a fretful whine, and as the child gets older a constant complaining follows. I have seen children grumble an hour or longer about being required to do some piece of work that occupies only five minutes in doing. I do not know whether any mother has found a remedy, but I notice the tendency on the part of mothers is to avoid giving the children any work to do in order to escape having to listen to this complaining.

This is not a wise treatment on the part of the mother, as she is not eradicating the disease, she is encouraging an equally dangerous disease, called selfishness, to also get a hold on the already diseased frame of her child; but one can scarcely blame her, for it is so much easier for her to do any work herself than it is to get it done in this manner. But only very thorough treatment will avail. What that treatment may be I am not prepared to say, but I would suggest that on the very first sign of its appearing in a child, the parents should seek to destroy it, even to the last germ. When the disease begins with a grown person he or she should locate the cause, and if it is anything requiring the aid of a skilled physician, one should be consulted at once. If

one finds that the disease has already got a firm grip on one's character, one should exercise all of one's will power and firmly refuse to let it increase.

"If we endeavor to look pleasant we will in a few minutes feel pleasant." Dr. Mary Wood Allen is my authority for that statement. It is true, if we feel pleasant we will not nag or growl. We can, as an antidote, adopt cheerfulness, smiles and silence.

M. E. Graham.

Hints by Manton.

WOMAN'S TEA GOWN, NO 3586.

Attractive and becoming tea gowns make economical as well as fashionable possessions. The woman who saves her street garments by never wearing them within doors and reserves her afternoon gowns for their proper service is enabled to keep well dressed at less cost than she who, possessing no tasteful home gowns, wears the garments of more formal use



3985 Tea Gown 32 to 40 Bust.

in her bed-room or boudoir. The very charming model shown is eminently simple yet graceful and stylish at the same time. The material from which the original was made is old rose cashmere having an edge of black embroidery that formed the foot-frill, revers, collar and cuffs. The yoke is of tucked taffeta. All bright and becoming shades of color are correct and henrietta, albatross, and all the light weight wools as well as soft finished silks are appropriate.

The foundation is a fitted lining that extends to the waist line only, on to which the yoke is faced and to which the portions of the gown are attached. The gown itself is cut with loose, flowing fronts, under-

arm gorges that outline the figure and a back that is laid in inverted plaits to give a Watteau effect. The upper edges of the back are finished with revers. Bolero fronts, that are softly draped from the under-arm seam to the centre front, have revers that roll over at the upper edge and meet those of the back at the shoulders. The sleeves are in bishop style with deep pointed bell cuffs, and at the neck is a turn-over collar.

To cut this gown for a woman of medium size 11 yards of material 21 inches wide, 9½ yards 27 inches wide, 7½ yards 32 inches wide or 5½ yards 44 inches wide will be required, with ½ yard of tucking for yoke and 1½ yards 21 inches wide, 2½ yards 44 inches wide for frill.

The pattern 3086 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."

Antiseptics

One aim of the surgeon of modern times is to eliminate from wounds all traces of dirt and of germs. The growth of germs produces "dirt" of the most harmful nature, since the absorption of the materials thrown off in the course of their growth occasions symptoms resembling acute poisoning.

The words antiseptic and antiseptics are almost synonymous with words of old-time virtue, namely, clean and cleanliness. A perfectly clean wound heals rapidly and without the discharge of fluids.

In order to secure this most desirable results the surgeon goes to extreme lengths to secure absolute cleanliness. The site of the wound, the surgeon's hands and nails, the instruments employed must each be rendered absolutely free from the least trace of germ life.

Unbroken surfaces of the skin and mucous membranes are themselves resistant to germ life. Breaks in the continuity of the skin or mucous membrane, or inflammation, form avenues by which germs of disease frequently gain entrance to the system. It is therefore desirable that even insignificant wounds and inflamed conditions should be frequently bathed with cleansing solutions.

Slight sore throat, the enlarged tonsils of childhood whether they are of short or long duration, should, in the light of the present knowledge of disease, be daily cleansed with mild antiseptic solutions, in order that more serious disorder be not the outcome.

Solutions of the kind termed antiseptic are "healing" because they oppose the growth of germ life. Nature herself heals, but progress in healing is more rapid when the process is unhindered by these microscopic forms of life.

Some of the methods in vogue long before the modern term came into use are nevertheless in line with the scientific application of the principles of antiseptics. The old-time use of the lye of wood ashes for wounds caused by unclean instruments is an example. Where antiseptic drugs are not available, clean wood ashes, formerly at hand everywhere, and boiling water form an antiseptic solution not to be despised, even yet.

During and after times of illness a process of cleansing must be instituted which will render everything antiseptic on which the germs of disease may have lodged.

Exposure of contaminated articles to sunlight and air is an easy way of obtaining excellent results.

When floors and the like are to be cleansed, carbolic acid freely diluted with water is the best of all the easily obtained substances.

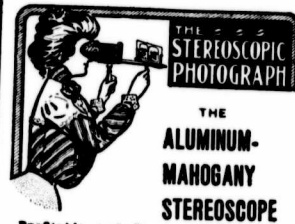
Lime is an excellent absorbent of moisture and is rapidly fatal to germ life. It has a wide range of usefulness, both indoors and out. It is a valuable deodorizer as well as an antiseptic.—Youth's Companion.

Fainting

A person about to faint becomes affected with ringing in the ears, the sight fails, the ideas are confused, the mind incapable of exertion, the countenance becomes deadly pale, cold sweat breaks out over the forehead, the power over the limbs either becomes very unsteady or fails altogether, and if actual fainting happens, the individual sinks down, and is really in a condition which much resembles death, and might pass into death.

As said often, the direct cause of fainting is diminished circulation of blood through the brain; it must be obvious that in the endeavors to restore a person who has fainted the circulation must be promoted as quickly as possible, and for this purpose the individual should be laid quite flat down, the head on a level with the body, so that the feebly acting heart may not have to propel the blood upward, but horizontally. The neck and chest should be exposed, fresh air admitted freely, a little water sprinkled on the face, and stimulant vapors, such as ammonia, held to the nostrils at intervals. Sal volatile, or a little spirits, or wine and water, or from twenty to thirty mims of chloric ether, if the person is capable of swallowing, may be given. The new remedy, nitrate of amyl, is found useful, and, being inhaled only, is more easily administered. Friction over the region of the heart with the hand or rough cloth should be vigorously employed with other means when there is a difficulty in restoring animation.

It must be remembered that the first period of some apoplectic or paralytic seizures is one of faintness, and also that where the affection is the consequence of loss of blood its continuance to some ex-



Profitable and Permanent Employment for intelligent and energetic men.

The Stereoscopic business is not only a very lucrative, but also a very pleasant one, inasmuch, that the views please and interest a customer the moment they are shown.

We furnish our salesmen with the newest and most interesting scenes, our latest being

T. R. H. The Duke and Duchess of Cornwall and York, on their recent visit to Canada,

The South African War, and thousands of other standard subjects.

Our Aluminum-Mahogany Stereoscope is entirely new, and forms the most attractive and fascinating feature of our business.

Our salesmen make from \$100 to \$200 per month, and farmers during spare hours can make from \$10 to \$25 per week.

Full particulars sent on application.

UNDERWOOD & UNDERWOOD

Toronto Ont.

FALL TERM

Now Open in all Departments of the

Central Business College

TORONTO

Young men and women are coming in from all parts of the Dominion to attend our school, because they find with us very superior advantages. Our catalog explains them. Write for it.

ENTER ANY TIME.

W. H. SHAW, Principal
Yonge and Gerrard Sts., Toronto.

Only vegetable oils—and
no coarse animal fats—
are used in making

"Baby's Own Soap"

PURE, FRAGRANT, CLEANSING.

Doctors recommend it
for Nursery and Toilet use

Beware of Imitations.

Albert Toilet Soap Mfrs., Montreal

tent may be the safety of the patient. In either case the use of stimulants must be a very cautious one.—Family Doctor.

McFingle—Poor Broome! He's gone over to the silent majority.

McFangle—Why—s—when did he—is he dead?

McFingle—No—married! -- Exchange.

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

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

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

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THE FARMING WORLD,
CONFEDERATION LIFE BUILDING,
TORONTO.

QUESTIONS AND ANSWERS

Feeding Lambs Grain.

J. H. S. writes: "In feeding grain to lambs I would like to know if it should be fed to the lambs and ewes together, or if to lambs alone how it is done. In feeding rape to wethers that are in the feed pen, would it be advisable to have a small patch of rape near the pen, that they could be turned into for a couple of hours or longer each day."

If the ewes are to be fattened for market as well as the lambs, they could be fed grain together, but if not it will be found more profitable to feed grain directly to the lambs. To do this a lamb creep should be used in the corner of the shed or field. To start the lambs to feed when quite young, it may be necessary to feed the ewes and lambs together for a short time. A creep can be made by nailing two strips horizontally across the corner of the pen, on which nail perpendicular strips wide enough apart to allow the lambs to pass through. These

strips should be movable so that as the lambs grow older the openings can be made larger.

It would be a good plan to have rape near the feeding pen, as this food would be helpful in fattening the wethers. To prevent danger from bloating it would perhaps be better to cut the rape and feed it in the pens. When the wethers are to be turned on the rape they should get their grain first.

The Business Farmer

Conditions make it essential that the man who in the present day would succeed at farming should have a good business training. The young man of the farm, in particular, should possess himself of this training. We draw attention to the advertisement of the Federated Business Colleges on page 595 and by dropping a post card naming The Farming World will receive a handsome year book.

Ontario Cattle Wanted.

Mr. C. H. Hadwin, Secretary of the British Columbia Dairymen's Association who is at present in Ontario has received instructions from the Hon. J. D. Prentice, of Victoria, to purchase three trainloads of young stockers for his ranch. He wants 1,500 animals.

British Columbia is making large purchases of cattle in the east, mainly in Ontario. Up to the present date the purchases amount to \$26,000 including a shipment of 408 calves and yearlings which were forwarded on Nov. 23rd. The Live Stock Commissioner is now preparing to fill a fresh order for cattle for British Columbia totaling between \$20,000 and \$25,000. In view of the heavy freight rates to the coast and the risk of animals being injured or dying en route, Mr. Hadwin states that the cattle must be bought at as low a price as possible.

The Barred Rock Club.

The annual meeting of the Canadian Barred Rock Club, which is to be held during the week of the Winter Fair at Guelph, December 10 and 11, promises to be a very interesting one. A number of important questions will be discussed.

On Tuesday evening, December 10, an open meeting will be held to consider the present method of distributing the Government grant amongst the different varieties,

CURES GOITRE

Great Medical Discovery that Cures this Dangerous and Disfiguring Disease at Home Without Pain or Inconvenience.

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A well-known Cincinnati physician has had marvellous success with a remedy that always cures Goitre or Thick neck quickly at home; and owing to



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the fact that most sufferers believe Goitre is incurable he sends a free trial package of his discovery so that patients may try it and know positively that their Goitre can be cured at home without pain, dangerous surgical operation or any inconvenience.

Doctor Haig can cure any Goitre quickly and safely in your own home. It makes no difference how serious your case may be, just write him to-day telling your age, size of your Goitre, what part of the neck it is on and how long you have had it and he will send you by return mail the free trial package, post-paid, of the remedy that will surely cure you.

Do not delay but write to-day to Dr. John P. Haig, 3255 Glen Building, Cincinnati, Ohio, and he will forward the treatment, postage prepaid. Do not fail to get this wonderful remedy. In Bombay, India, 60,000 patients in that infected district were cured with this same remedy, and wherever used, its success has been marvellous.

700

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11 inches long, stamped on cambric, by mail for 5 cents; cambric pattern and linen Battenburg braid and edging for 20 cents. Three patterns, all different, for 10 cents. When ordering give the number or enclose this advt.

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which subject will be introduced by the club Secretary. Another important matter which will be handled by Mr. W. R. Graham, the poultry expert of the Ontario College, is "How the Barred Plymouth Rocks may best be improved from a utility standpoint." The fullest discussion will be invited on these subjects.

On Wednesday morning the Board of Directors will meet to prepare their report and transact any other business that may come before them.

On the afternoon, December 11th, at 2 o'clock sharp, the second annual meeting of the club will be held, and it is urgently requested that every member attend. At this meeting the reports of the year will be presented, the constitution and by-laws considered, the extension of the club's influence to other provinces discussed, the officers elected and other business transacted.

J. E. Bennett, Geo. W. Miller,
President. Sec.-Treas.

Fruit Experiment Stations.

The Board of Control of the Fruit Experiment Stations of Ontario met in Toronto last week. There were present, Dr. Mills, Chairman, L. Woolverton, Secretary, Prof. H. L. Hutt, A. M. Smith, W. M. Orr, and Wellington Boulter. The reports from the various stations showed that the fruit yielding zone of the Province extended farther north than was generally supposed. Good apples can be grown in St. Joseph, while several varieties of peaches grow well on the southeast shore of the Georgian Bay. A collection of fruit trees have been forwarded to the pioneer farm at Dryden in the Rainy River District for testing purposes. Testing stations are now located in all the important belts of the Province.

Township Scale Inspectors.

A deputation representing the fruit growers of Salt Fleet Township waited in the Minister of Agriculture last week, asking that permissive legislation be introduced at the coming session of the Legislature providing that townships may, on petition of the ratepayers, appoint an inspector whose duty it will be to enforce the San Jose Scale Act in that particular township. Such an officer would work under the Provincial Inspector, and the expenses would be divided between the township and the Government. The Minister expressed himself as being favorably disposed to introduce such legislation. It seems like a good plan, but for the purposes of the ultimate extermination of the pest, a Dominion or Province law, properly enforced, would be more effective.

A Good Idea from Whitby.

"One of the best features in a fair," said Mr. Stevenson, "is the parade of prize animals. It provides an attraction superior to that usually offered in front of the grand stand, and it costs nothing. Moreover it is educational. Of course, exhibitors do not like it, but that does not count."

"The Whitby Fair people have," put in Mr. Drummond, "hit upon a novel plan of compelling exhibitors to observe the rule relative to the parade. Besides the prize ticket, they give a winner a slip like a meal ticket and tell him that this ticket must be handed by him to a director while he is passing in procession before the grand stand. Failure by the exhibitors to present this ticket in this way forfeits the prize. There is no forfeiture. All the prize-winners parade."

Poultry and Eggs.

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

BROWN LEGHORNS, forty choice cockerels and a few May pullets. Grand birds, early and prolific laying strain, pullets lay at five months. While prolific laying is foremost in breeding standard qualifications not discarded, as this strain won at Pan-American. Correspondence solicited. Eggs in season. John B. Pettit, Fruitland, Ont.

PURKLY MAMMOTH bronze turkeys for sale, of good quality and size, have a fine tom at head of flock bred from Imp. Leg. and also some fine hens, have one that won 1st prize three years in succession, and at West Durham and Darlington Fall Fair I won 1st and 3rd on turkeys. Chick now will crate safe and ensure safe delivery for \$2.50 for toms and \$2.00 for hens. Samuel Snowden, Box 205, Bowmanville.

BARRED AND WHITE Plymouth Rocks, Silver-laced and White Wyandottes, selected matings from noted breeders in the United States and Canada, including A. C. Hawkins, Lancaster, Mass. J. W. Newman, Engleisle Farm, Brockville, Ont.

BUFF WHITE and Golden Wyandottes. The people's favorites; splendid breeders; ask for Grover, St. Thomas, Ont.

FOR SALE—Single Comb Leghorn Cockerels; splendid birds; cheap, if taken soon. H. D. Norton, Alliston, Ont.

BRONZE TURKEYS—My stock has won first and second premiums at the largest shows in England, Ireland, United States, and Canada. My stock pleases customers, as I have sent out 500 turkeys and only four were dissatisfied. Choice stock now for sale. W. J. Bell, Argov, Ont.

MAMMOTH BRONZE TURKEYS and Toulouse B. Geese. For Sale—Forty head of turkeys and thirty Toulouse geese, bred from the greatest prize winning strains in America. On our first exhibit at the great Toronto Industrial Exposition, Sept. 1901, we won on Bronze turkeys first and second Cockerel, and first and second Pullet. No old birds exhibited, they were in moult. Satisfaction guaranteed and correspondence cheerfully answered. Please enclose stamp for reply. Jas. Ford & Sons, Drumquinn, Ont. P.S.—All turkeys bred from a grand imported tom.

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THE FARMING WORLD is absolutely indispensable to every person engaged in any department of Agriculture. It possesses the following strong points:

1. It is the only strictly agricultural weekly in the Dominion.
2. It supplies during the year more original articles than any other similar paper published in the country.
3. Its staff of writers and correspondents comprise the very ablest and most experienced men and women in the Dominion.
4. It is fearless and independent in discussing matters affecting the farmer's interest.
5. It is the Official Organ of the Dominion Live Stock Associations, and consequently is the authority in this country on all live stock matters.
6. It is the Official Organ of the Farmer's Institute System of the Province of Ontario.
7. It is the only paper in the Dominion containing a regular Department devoted to the cultivation of Sugar Beets.
8. Its Market Review and Forecast is compiled by an expert and is thoroughly reliable. This feature of the paper each week is alone worth many times the yearly subscription price.
9. It contains each week a Home Department, in which appears articles, stories and what not of interest and value to both old and young in the home.
10. During the year several numbers of special interest are published, such as our Annual Autumn Number, our Horse Number, Poultry Number, etc., etc. These numbers are very much larger than the ordinary issues, and in themselves are well worth the careful reading of every farmer and Live Stock Breeder.

New subscribers for 1902 will receive the remainder of this year, free.

The Publisher,
THE FARMING WORLD,
Confederation Life Building, Toronto.

Dear Sir,—Please send THE FARMING WORLD
every week from the present date to 1st Jan-
uary, 1903, for which I enclose \$1.00.

Name _____

Post Office _____

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 line stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

Cattle

Official records of American Holstein-Friesian cows from Oct. 1 to Nov. 15, 1901, are summarized as follows: Thirty reports have been received during this period. Of these seven were of full-age cows averaging: Age 6 years, 9 months, 8 days; 18 days after calving; milk 389.6 lbs.; butter fat 13.327 lbs.; equivalent butter 80 per cent. fat, 16 lbs. 10.5 ozs., or 15 lbs. 8.8 oz. 85.7 per cent. fat. Four were of the four-year-old class averaging: Age 4 years, 10 months, 13 days; 65 days after calving; milk 371.1 lbs.; butter fat 13.327 lbs.; equivalent butter 80 per cent. fat, 17 lbs. 5.1 oz., or 16 lbs. 2.7 oz. 85.7 per cent. fat. Ten were of the three-year-old class averaging: Age 3 years, 6 months, 19 days; 35 days after calving; milk 350.4 lbs.; butter fat 12.104 lbs.; equivalent butter 80 per cent. fat, 15 lbs. 2.1 oz., or 14 lbs. 1.9 oz. 85.7 per cent. fat. Nine were of the two-year-old class averaging: Age 2 years, 7 months, 26 days; 35 days after calving; milk 317.7 lbs.; butter fat 10.954 lbs.; equivalent butter 80 per cent. fat, 13 lbs. 11.1 oz., or 12 lbs. 12.5 oz. 85.7 per cent. fat. A very remarkable heifer in this class: Age 2 years, 11 months, 18 days; 27 days after calving produced during her week's test 390 lbs. milk, containing 16.957 lbs. fat, equivalent to 21 lbs. 3.1 oz. butter, 80 per cent. fat, or 19 lbs. 12.5 oz., 85.7 per cent. fat.

Mr. S. Campbell, Kinnellar, shipped last week per the s. s. Kastalia, of the Donaldson Line, nineteen highly bred Shorthorns for Messrs. H. Cargill & Sons of Ontario. Eleven of them were bred by Mr. Marr, Uppermill, namely, five one-year-old heifers, in calf to Bapton Diamond, and four heifer calves and two bull calves, all from the following strains: Missies, Blythsones, Princess Royals, Mauds, Bessies, and the old Cruickshank Crescents. One excellent young bull calf was bred by Mr. Duthie, Collynie, and was out of a Missie cow, by Lovat Champion. Three yearling heifers came from Mr. A. Campbell, Deystone; a nice two-year-old heifer was bought from Mr. Brown, Cullerley; while an extra good thick roan heifer calf came from Mr. John Rennie, Upper Anguston. Two nice heifer calves were likewise secured from Mr. John Cran, Keith, out of the pair of cows that were first as a pair at Aberdeen last July. The way these last two are bred, they cannot help growing into excellent cows. Altogether, Messrs. Cargill have got an excellent selection, which should do well with them in Canada. Mr. Shepherd, Shethin, has

also sold a very nice lot of seven highly bred cows and heifer calves to the Hon. Mr. Cochrane, Hillhurst, for exportation to the same country. They are descended from some of the best strains in the herd, and have been purchased at substantial prices. -- North British Agriculturist.

Sheep

In September last per s. s. "Tangariroo" from the port of London, Messrs. Alfred Mansell & Co. of Shrewsbury, shipped to Mr. Rupert Parry of New Zealand, an exceptionally well bred ram purchased at the Harrington Hall Dispersion Sale for the sum of 85 gs. This ram was specially selected for his symmetrical proportions and dense fine wool. His breeding was as follows: Sire Bonny Dreamful 9362 (by the 175 gs. Montford Dreamer 7622), dam by Earl Glamis 9472, bred in Scotland by Lord Strathmore, sire of g. dam the 175 gs. Montford Dreamer before alluded to, etc.

Messrs. Alfred Mansell & Co. despatched in September last per the s. s. "Memmon" from Bristol, a small but select lot of Shropshire sheep to Professor Grisdale for the Central Experimental Farm at Ottawa. They consist of five beautiful Shearling ewes and four especially well bred ewe lambs from Mr. A. E. Mansell's Dispersion Sale, and a high class Shearling ram from Mr. T. S. Minton's famous flock. Professor Grisdale has this

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GOMBAULT'S CAUSTIC BALSAM.

Use genuine without the expense of *De Lawrence, Williams & Co.* Sole Agents for Proprietary for the U.S. & CANADA. CLEVELAND, O.
The Safest, Best **BLISTER** ever used. Takes the place of all liniments for mild or severe action. It can be used in any form of Horses and cattle. **SUPERBIDS ALL CAUTERY** or **BLINDING**. Impossible to produce scurf or blanch. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by express, charges paid, with full directions for its use. Send for free descriptive circulars.
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ONTARIO PROVINCIAL WINTER FAIR

A Combined Exhibition of Fat Stock, Dairy Cattle and Dressed Poultry, will be held at

Guelph, Ont.

DECEMBER 10th to 13th, 1901

Every provision made for the convenience and comfort of Exhibitors and their Exhibits.

Entries should be made before Nov. 23. After that date an extra fee will be charged. Positively no entries will be received after Dec. 1.

Single Passenger and Freight rates.

All applications should be made to the Secretary,

A. P. WESTERVELT,

Parliament Buildings, TORONTO

A. W. SMITH, President,

Maple Lodge, Ont.

PRIZE LIST NOW READY

week advised their safe arrival, adding that they got through quarantine well, and that he is very pleased with the ewes and lambs as well as with the ram.

Poultry

James Ford & Sons, Drumquin, Ont., write: "It is with pleasure we can state to our numerous customers in the past that our turkeys and geese are, we believe, better than anything we have bred in the past."

"At the Toronto Industrial Exhibition we won first and second for bronze turkey cockerel, and first and second for pullet. We did not exhibit any old birds as they were badly in moult."

"We also bred the first prize bronze turkey cockerel and fourth pullet at the Pan-American Exposition, winning in strong competition over birds exhibited by the foremost breeders of the United States and Canada."

Corn is King.

(Continued from page 618)

Q. Would not ensilage be better than soiling in summer?

A. Dan Drummond, Myrtle: I think not. First because there is a loss in feeding value of corn being made into silage of from 15 to 25 per cent. This is saved by feeding direct from the field. Second, the variety of the crops is welcomed by the animals, and peas, oats, barley and the clover are more nearly a perfect feed than corn, even before it has lost much of its feeding value.

Q. Is there not less labor in connection with the ensilage?

A. There is, perhaps, some advantage on the labor side of the question, but not nearly so much as appears at a glance. You must have a regular system, and the team going to the field for green feed can take the manure and spread it at once on the ground.

Q. Would you always feed in the stable?

A. Yes, as that is the only place you can feed all alike. In the field they will waste it by running over it, and in racks, there is always some master cow to scare the timid ones away, and the timid ones are usually the best milkers.

Q. Would you not as soon carry on a partial soiling?

A. Partial soiling is better than none at all, but all it can do is to help out a poor pasture. You do not derive the full benefit of the soiling system in saving of land, saving of fences, saving of manure. You do not derive the full benefit of the comfort of the cattle, nor the larger production of butter.

Visitor—No, I won't come in. If I could see Mr. Jones for two minutes?

Servant—What name shall I say, sorr?

Visitor—Professor Vandersplinkentootleheimer.

Servant—Och, sure ye'd better step in and bring it wid ye, sorr!

—Punch.

Stock

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

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

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

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

W. H. SIMMONS, New Durham, Ont.

Glen Crescent Shorthorns and Oxfords

Two Young Bulls, by imp. "Precious Stone" and imp. "Blue Ribbon" for sale. Can spare a few more Oxford females.

J. W. WIDDIFIELD, Uzbridge, Ont.

The Up-to-date Herd Tamworths

Bred from sweepstakes herd. Young stock of both sexes for Sale.

W. H. McCUTCHEON, BRUSSELS, ONT.

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...Young Stock for Sale

ROBERT NICHOL, BRUSSELS, ONT.

SHROPSHIRE

Bred from the best imported Stock. Also Silver and White Wyandottes.

W. D. MONKMAN, Bond Head, Ont.

OXFORD DOWN SHEEP

Durham Cattle, "Milk-ling Strains", Yorkshire Pigs, Plymouth Rock Poultry, John Cousins & Sons, Harrison, Ont.



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

Rapids Farm Ayrshires

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

Come and See, or Write for Prices

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

ROBERT HUNTER,

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

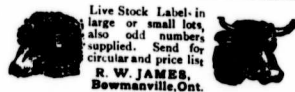
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Live Stock Label-in large or small lots, also odd numbers supplied. Send for circular and price list.

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The only nest in the World which positively prevents hens from eating their eggs.

Simple—Efficient—Durable. No springs—Eggs cannot break. The inclined nest gathers them safely in lower section. Prevents fleas, or parasites, etc. Everlasting, never failing, comfortable. Thousands now in use. Ask your dealer for it or write to L. F. Moxin, Inventor, Mr. 15 Antoine St., St. Hyacinthe, Que.

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SPLENDID 300-Acre Farm, 5 miles from Brantford. 240 acres cleared. Three two-story stone houses, 11 rooms, cellars full size. Frame barn 45 x 100, all 3 other barns, 2 drive houses, 2 sheds, 20 acre orchard. 60 rods from railway, excellent soil. For full particulars, address

S. C. READ, Broker, 129 Colborne St., Brantford, Ont.

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,

Toronto, Dec. 2nd, 1901.
A fairly steady trade continues in wholesale lines, though the most busy portion of the fall trade is over. The cold, wintry-like weather during the week has been conducive to business. General business throughout the country is satisfactory, and the prospects of a good spring trade encouraging. Money is in good demand and the rates on interest steady at 5 per cent. on call.

Wheat

Though the wheat situation shows little change from a week ago, still in speculative circles, both at Chicago and New York the movement is bullish rather than bearish. A factor favoring this has been the light shipments from the Argentine which has been largely offset, however, by heavy movement of wheat in the American and Canadian Northwest. Should this heavy movement continue it will not be long before the amount reaches what it was a year ago. Wheat exports from the United States from July 1st, to date, aggregate 122,701,582 bushels as against 74,245,113 bushels for the same period a year ago. There is also a big lot of wheat in sight and to be marketed, so that there is no likelihood of any great scarcity before another crop arrives. A lot of business is now doing in Manitoba wheat, which is firm here, No. 1 hard selling at 85c, No. 1 Northern 82c and No. 2 Northern at 79c, grinding in transit. The market for Ontario wheat keeps firm under a good home demand. Red and white are quoted at 70c to 71c, goose 65c to 66c and middle freights, and 70c for spring, east. On Toronto farmers' market red and white bring 72c to 77c, goose 65½c to 67c and spring fine 75½c per bushel.

Oats and Barley

The oat market continues strong at 50½c to 51½c, at Montreal to the trade. Some very fine lots of Manitoba oats have recently sold there at 51c to 52c. The market here keeps up. There has been some enquiry for American points. Cars of No. 2 are quoted here at 46c east and 45c middle freights. On the farmers' market, oats bring 47½c to 49c per bushel.

The barley market is also strong. Trade quotations here range from 51c to 56c as to quality and point of shipment. On Toronto farmers' market malt barley brings 54c to 62c and feed 53c to 54c per bushel.

Peas and Corn

The market for peas is strong. Peas out of store are quoted at Montreal at 87½c as against 68½c a year ago. The demand here is

good with supply scarce at 79c to 80c outside east and west. On the farmers' market peas (small) bring 78c per bushel.

Corn is also high. American mixed is quoted at Montreal at 71c to 71½c in car lots and Canadian at 67c to 67½c. There is a good demand here for Canadian mixed and yellow at 55c to 56c west.

Bran and Shorts

The market for these feeds is very firm and on the upward turn in prices. Ontario bran is quoted at Montreal at \$18.50 to \$19 and shorts at \$20.50 to \$22 per ton in car lots. City mills here sell bran at \$18 and shorts at \$20 in car lots l. o. b. Toronto.

Potatoes and Beans

There is a firm market at the recent advance. The sharp advance in the American markets has caused United States buyers to look to Canada for supplies. Shipments are also being made to some country districts where the crop is a failure. Car lots of choice stock are quoted at Montreal at 72c to 76c per bag. The demand is good here and car lots bring 58c to 60c per bag. On Toronto farmers' market potatoes bring 65c to 75c per bag.

Beans, handpicked, are quoted at Montreal at \$1.40 to \$1.45 per bushel in car lots. There is a fair demand here, and choice handpicked are quoted at \$1.60 to \$1.65, and unpicked at \$1.40 to \$1.50 per bushel in large lots.

Hay and Straw

There is no falling off in the demand for hay. Deliveries at country points have not been large so that buyers have had some difficulty in filling orders promptly. Owing to this difficul-

ty some high prices have been paid at country points for prompt delivery for baled hay. A large Chicago firm has commenced filling a 30,000 ton contract for the English market in Quebec. With a few large orders like this and large shipments to South Africa every few weeks Canada's surplus hay crop should be pretty well provided for. There is a strong undertone in the Montreal market, where baled hay quotations in car lots are: No. 1 timothy \$10.00 to \$10.50; No. 2 timothy \$9.00 to \$9.50; clover mixture \$8.25 to \$8.50; clover \$7.50 to \$8.00.

The market here keeps steady with a fair demand. Cars of baled hay on track are quoted at \$8.50 to \$9.00 and straw at \$5.00 to \$5.50 per cwt. On Toronto farmers' market timothy brings \$11 to \$12; clover \$7 to \$8.50, sheaf straw \$10.50 to \$11.50 and loose straw \$6 to \$7 per ton.

Eggs and Poultry

The total shipments of eggs from Montreal during the season of navigation just closed are 231,595 cases as against 227,756 cases for 1900, or an increase of 3,839 cases. The market is firm at gradually advancing prices for fresh and pickled stock on both sides of the Atlantic. Fresh selected stock in large lots is selling at Montreal at 24c to 26c, and fresh stock at 21c per dozen. The offerings here of strictly new laid and fresh gathered stock are light and the demand good at 18c for selects and 16c to 17c for ordinary fresh in car lots.

THE MATERIALS USED IN "THE D. & L." EMULSION are the finest the market affords regardless of expense. Taken in cases of wasting diseases, loss of weight, or loss of appetite, with great benefit. Davis & Lawrence Co., Ltd., manufacturers.

The Canada Permanent & Western Canada Mortgage Corporation

Head Office, Toronto St., Toronto

SAVINGS DEPARTMENT

\$1 and upwards received on deposit Interest paid or compounded half-yearly at 3½% \$100 and upwards received for which debentures are issued with coupons attached for half yearly interest at 4%

Invested Funds

\$23,000,000

OUR PRICE FOR CHICKENS HAS GONE UP

Our demand has doubled. Deal with a reliable firm; be careful of strangers. See our prices on this page.

THE CANADIAN PRODUCE CO., TORONTO

On Toronto farmers' market new laid eggs bring 25c to 35c a dozen.

The weather has been more favorable for the marketing of poultry. Some large sales of turkeys are reported at Montreal at 8c to 9½c for choice, young dry-picked birds. Nice young chickens are quoted there at 7½c to 8c; ducks, 7½c to 9c, and geese at 5½c to 6½c per lb., in large lots. Receipts have been plentiful here, but the market remains steady. There are too many thin turkeys and scalded chickens coming forward. To the trade chickens are quoted at 25c to 50c, and ducks 40c to 78c a pair, and geese at 5c to 6c and turkeys 6c to 8c per lb. On Toronto farmers' market live and dressed chickens bring 25c to 65c, ducks 40c to 80c per pair, and geese 6c to 6½c, and turkeys 9c to 10c per lb.

The Canadian Produce Co., 36 and 38 Esplanade East, Toronto, will pay until further notice for spring chickens 5c per lb. For hens (including last year's birds) 2½c per lb. For ducklings 5c per lb. Crates supplied free and express paid up to 50c per 100 lbs. of birds. These prices are for live weight.

Seeds

The good demand for red clover seed in England continues. At Montreal red clover is quoted at \$8 to \$9.50, timothy \$5.50 to \$6, and alsike \$10.50 to \$12.50 per cwt. On Toronto farmers' market alsike brings \$6.50 to \$7, red clover \$3.50 to \$4.75 and timothy \$2 to \$2.50 per bushel.

Cheese

The cheese situation shows little change though it is felt that rock-bottom has been reached and that values cannot go any lower. There has been more cable business during the week and a little more activity in buying. The exports for the season of navigation just closed are 1,799,075 as compared with 2,075,137 boxes for 1900. These show a decrease of 276,062 boxes as compared with a year ago. Finest September goods are mostly held off the market, but what goods of this class are offered bring from 9c to 9½c at Montreal. Finest Westerns are quoted there at 9c to 9½c, and finest Easterns at 8½c to 8¾c. Many of the local markets have closed down for the season, while others have arranged to meet fortnightly. At Woodstock, on Wednesday, the highest bid was 9½c, but the factorymen refused to sell. This would indicate a much better tone in the market than a week ago.

Butter

The exports of butter for the navigation season just closed are 412,056 packages as compared with 256,912 for 1900, an increase for this year of 155,144 packages. The butter market has ruled quiet but steady. Montreal quotations

are 20c to 20½c for round lots of choice winter creamery and 20½c for anything fancy. Western dairy is selling there at 15c to 17½c. The New York market is reported very firm at 25½c to 25¾c for best creamery. Receipts of all kinds of butter are pretty liberal here and there is a good demand for the better grades. Creamery prints are quoted at 20c to 22c, and solids at 19c to 20c. Dairy lb. rolls bring 16c to 17c and large rolls and tubs at 16c per lb. in round lots. On Toronto farmers' market lb. rolls bring 15c to 17c, and crocks 14c to 17c per lb.

Cattle

The cattle markets have ruled fairly steady during the week with little change in quotations, excepting for export cattle, which, however, are not plentiful, at least good quality. At Toronto cattle market on Friday the run of stock was not large, 55 loads all told, composed of 727 cattle, 1,656 hogs, 725 sheep and lambs, 20 calves and several hundred turkeys. Generally speaking, the quality of the fat cattle offered was not good. Trade, however, was fair, considering the quality offered. There has been little doing in export cattle during the week, only three or four straight loads being offered. A few of the best butchers' cattle were picked out and used as exporters, but had there been good exporters offered these would not have been taken. A few good shipping cattle would have found ready sale had they been offered. The best butchers' cattle were soon picked up, but common to inferior kinds were slow of sale. The bulk of the butchers' cattle offered were of light weight.

Export Cattle—Choice loads of these are worth from \$4.50 to \$4.70 per cwt., and light ones \$4.00 to \$4.30 per cwt. Heavy export bulls sold at \$3.75 to \$4.25 and light ones at \$3.25 to \$3.65 per cwt., choice export cows sold at \$3.00 to \$3.65 per cwt.

Butchers' Cattle—Choice picked lots of these, equal in quality to the best exporters, weighing 1,075 to 1,150 lbs. each, sold at \$4.25 to \$4.40 per cwt., good cattle at \$4.00 to \$4.15, medium at \$3.40 to \$3.55 and inferior to common at \$2.40 to \$3.25 per cwt.

Feeders—Heavy, well-bred steers from 1,100 to 1,200 lbs. each, sold at \$3.50 to \$3.75, and other quality at \$3.25 to \$3.50 per cwt. Light steers, 900 to 1,000 lbs each sold at \$3.00 to \$3.20 per cwt. Feeding bulls for the byres 1,000 to 1,300 lbs. each, sold at \$2.50 to \$3.00 per cwt.

Stockers—Yearling steers weighing 500 to 800 lbs. each sold at \$2.50 to \$2.75, and off colors and those of inferior quality at \$1.75 to \$2.00 per cwt. Light stock bulls

MAKE A NOTE OF IT, when you are leaving home to buy "The D. & L." Menthol Plaster. It is guaranteed to cure the worst case of headache, headache, stitches. Avoid everything said to be just as good. Get the genuine made by Davis & Lawrence Co., Ltd.

The Razor Steel

Secret Temper, Cross-Cut Saw



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A saw, to cut fast, "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves.

These saws are elliptic ground thin back, requiring less set than any Saws now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good, ask your merchant to let you take them both home and try them, and keep the one you like best.

Silver Steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a Saw for one dollar less and lose 2½c. per day in labor. Your Saw must hold a keen edge to do a large day's work.

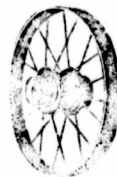
Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

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LOW WIDE-TIRE WHEELS

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Made to fit your axles



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WILSON'S HIGH-CLASS SCALES

SPECIAL PRICES THIS MONTH

On 2,000 lb.

Diamond Steel Bearing
SCALES

Write To-day.



**C. WILSON
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60 Esplanade St. E., TORONTO, ONT.

THE IMMENSE PINES OF CANADA furnish the basis for that peerless cough and cold remedy, Piny-Balsam. It cures quickly and certainly. Of all druggists, 25c. Made by proprietors of Perry Davis' Pain-Killer.

500 to 800 lbs. each sold at \$1.75 to \$2.50 per cwt.

Calves—These are in fair demand at Buffalo. Good to choice veals bring \$6.75 to \$7.25 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Sheep and Lambs.

Prices continue easy for sheep at \$2.75 to \$3.00 per cwt. for ewes, and \$2 to \$2.50 for hucks. Spring lambs are firmer at \$2.75 to \$3.00 each and \$2.75 to \$3.25 per cwt. Good sheep are quoted at Montreal at \$3.00 to \$3.25 and lambs at \$3.50 to \$3.75 per cwt.

Eirick Bros., East Buffalo, write of date Nov. 30th as follows:

"The trade to-day was strong on all grades of Canada lambs, with the demand exceptionally good. Prime ewe and wether lambs, fat and good quality, selling at \$4.75 to \$4.85, and we sold one deck of handy-weight lambs at 5c a pound. The culls and common, bucky, coarse lambs selling at \$4.25 to \$4.35."

Hogs.

As we intimated last week, hogs are on the up grade again and prices at Toronto market on Friday advanced to \$6.00 per cwt. for select bacon hogs, \$5.62½ for lights and \$5.50 for fats. Unculled car lots sold at about \$5.75 per cwt.

For the week ending December 7th, The Wm. Davies Co., Toronto, will pay \$6.12½ per cwt. for select bacon hogs, \$5.75 for lights and \$5.62½ for fats.

Montreal packers quote \$5.75 to \$6 per cwt. for bacon hogs.

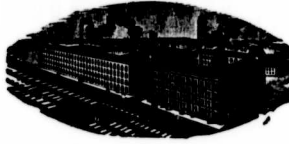
Horses.

The horse trade keeps quiet. At Montreal, though the local trade is quiet, there is some business on export account. Some rough, heavy horses for the lumber districts were sold there at \$100 to \$140 each. Some sales of carriage horses are reported on English account at \$200 to \$250 each. Regular quotations there are as follows: Carriage horses, \$175 to \$350; heavy draughts, \$125 to \$225; light roadsters, drivers and saddles, \$100 to \$250; remounts, \$110 to \$145.

There is little or no activity in the general market for horses. At Grand's there has been some enquiry for second-hand horses and a few horses for the lumber camps. Prices keep up, but there is little demand. Col. Dent is examining remounts here this week. Mr. W. Harland Smith, proprietor of Grand's, has secured the contract for supplying 600 horses for the Canadian Yeomanry who go to South Africa in January. These horses must be of the same class as the ordinary remounts only that horses ranging from 14.2 to 15.2 hands high will be taken while the regular remounts require to be from 14.3 to 15.1½ hands high. No horse will be taken under six or over eight years of age. Mr Smith will begin buying at once.

AT ALL TIMES OF YEAR Pain-Killer will be found a useful household remedy. Cures cuts, sprains and bruises. Internally for cramps and diarrhoea. Avoid substitutes, there's only one Pain-Killer. Perry Davis.

BELL . . PIANOS . . . AND BELL . . ORGANS.



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Agricultural College.

- (1) Three Weeks' Creamery Course—Dec. 2, 1901.
- (2) Twelve Weeks' dairy Course—Jan. 4, 1902.
- (3) Two Weeks' Course in Stock and Grain Judging—Jan 8, 1902.
- (4) Four Weeks' Course in Poultry Raising—Jan. 10, 1902.

Ladies admitted to Dairy and Poultry Courses.

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Guelph, November, 1901.

JAMES MILLS, M.A., President.



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THE great Blood Purifier for Cattle, Horses, Sheep and Hogs. A handful of this wonderful Purina, mixed with the usual feed strengthens the nerves, hardens the muscles, and generally invigorates. Recommended by eminent veterinary surgeons in Canada and United States.

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The corrugated pan of a Champion Evaporator, placed directly over the hottest part of the fire, is its shallow boiling heater. The arrangement is such that the first sap entering the evaporator is first made into syrup. Simple in operation, and easy to clean. A boy of sixteen years old can handle our largest outfit. Send for circular giving full details of best method for handling a maple sugar camp.

The GRIMM MFG. CO., 84 Wellington St., Montreal, Que.

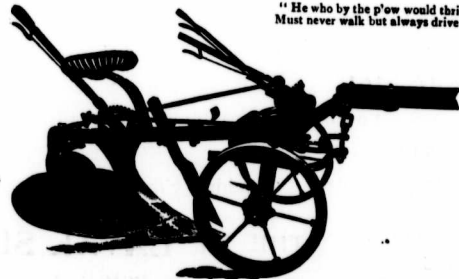
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This plow has a lighter draft than any other plow doing the same work. Anything a plow should be asked to do it can do with less strain on team or ploughman.

It is the simplest plow made and can be run by any man, woman, boy or girl who knows how to manage a team.

"He who by the plow would thrive
Must never walk but always drive."



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ALWAYS MENTION THE FARMING WORLD WHEN WRITING ADVERTISERS.

THE JUGGLING OF FIGURES

Macoua W T 1 Jan 02
Exp Farm

and other desperate methods used by some of the "little pin-wheel gas pipe separator concerns" show almost human intelligence, but after both the machines and their projectors are turned into poor fertilizer, the "Alpha" will continue—as in the past—to demonstrate that it will save its cost each year over and above what is possible with any other separator or system.

The following letter gives some information which the off-shoots of Ananias are attempting to hide from public gaze:—

BUFFALO, N.Y., November 2, 1901.

THE DE LAVAL SEPARATOR CO.,
74 Cortlandt St., New York, N.Y.

GENTLEMEN,—

As engineer in charge of the Model Dairy at the Pan American, Buffalo, N.Y., I was impressed with the following points of merit in the running of your Cream Separator. It did its work very smoothly and quietly, showing by its running its mechanical excellence. I could run it with a much smaller consumption of fuel and lower steam pressure. In fact, it took **but one-fourth as much steam to do our work with it as the "United States" Separator used to do the same work**, and at no time did I have to force my fire or boiler in order to keep up the supply of steam, as I did when the latter machine was in use.

We were sorry to see it leave on June 28th and glad to see it returned on August 9th, as it made less labor for all. Your representatives let the regular Dairy force handle it, **while your competitor, the "United States," had an expert to run their machine during the greater part of the time of their run**, and even then he could not make a record for close skimming except by running his machine at an excessive speed of 11,000 to 12,000 revolutions a minute, **cutting down the capacity and making a thin cream**. One morning in particular **the cream was so thin I had to run the churn two hours and twenty minutes before the churning was done**.

Yours very truly,

JAMES F. DOWNEY,

Engineer Model Dairy.

And further,

1st—The letter from the Model Dairy management and employees was written **October 21st**.

2nd—The official skimming record of the De Laval machine **during its allotted run is .0161**.

3rd—The official skimming record of the U. S. machine **during its allotted run is .0543**.

Vermont Farm Machine Co. or any one else to the contrary notwithstanding.

New York
Chicago
San Francisco

THE DE LAVAL SEPARATOR CO.

77 York Street, TORONTO

Montreal
Winnipeg
Philadelphia