

Every Week—\$1.00 a Year.

V. 19 # 26

Toronto, December 24, 1901.

# THE FARMING WORLD

Address  
THE FARMING WORLD

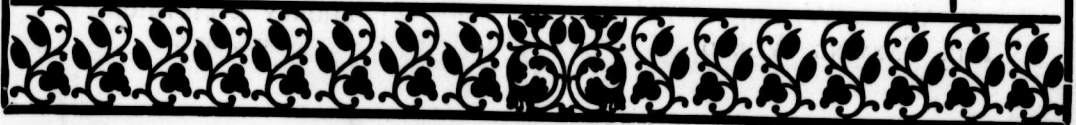
FOR FARMERS and STOCKMEN

CONFEDERATION LIFE  
OF THE  
TORONTO

**D**URING these closing days of an old year, of a new century, every husbandman desires to acknowledge the goodness of a Divine Providence, which has placed under his care the cattle on a thousand hills, and valleys that overflow with corn and wine.

With a heart gladdened because of the past, each one prays that in the months to come his flocks may increase, and that his acres may bring forth their harvests in abundance.

The publishers of THE FARMING WORLD send cordial greetings to their thousands of readers, and wish each one A GLAD CHRISTMAS AND A HAPPY NEW YEAR.



**A CARD**

**PARIS SEPARATOR AWARDS**

The De Laval Cream Separators received the **GRAND PRIZE** award at the Paris Exposition, in the name of "SOCIÉTÉ ANONYME SEPARATOR," which is a French translation of "AKTIEBOLAGET SEPARATOR," the Swedish name of the De Laval European organization, both names meaning "SHAREHOLDER'S SEPARATOR COMPANY, LIMITED."

The repeated misrepresentation of the VERMONT FARM MACHINE Co. (manufacturers of the so-called "U.S." separator) in this regard, culminating with the malicious falsehood that no such award was made and that the De Laval Company is guilty of "lying" in so claiming brings the matter to a point where common business self-respect demands that some radical action be taken.

We have, therefore, this day instructed counsel to at once take such legal steps as may be justified and proper in the circumstances against both the VERMONT FARM MACHINE Co., and, where practicable such papers as may have given advertising publication to these false and libelous statements.

**THE DE LAVAL SEPARATOR CO.**

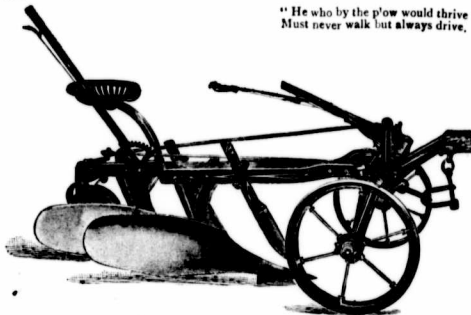
NEW YORK, Nov. 17, 1901.

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**...ONTARIO RIDING PLOW**

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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.

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It does not pay to buy a Saw for one dollar less and lose 25c. 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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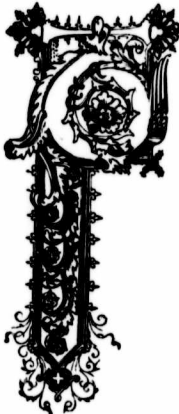
# The Farming World

For Farmers and Stockmen

Vol. XIX

DECEMBER 24th, 1901.

No. 26

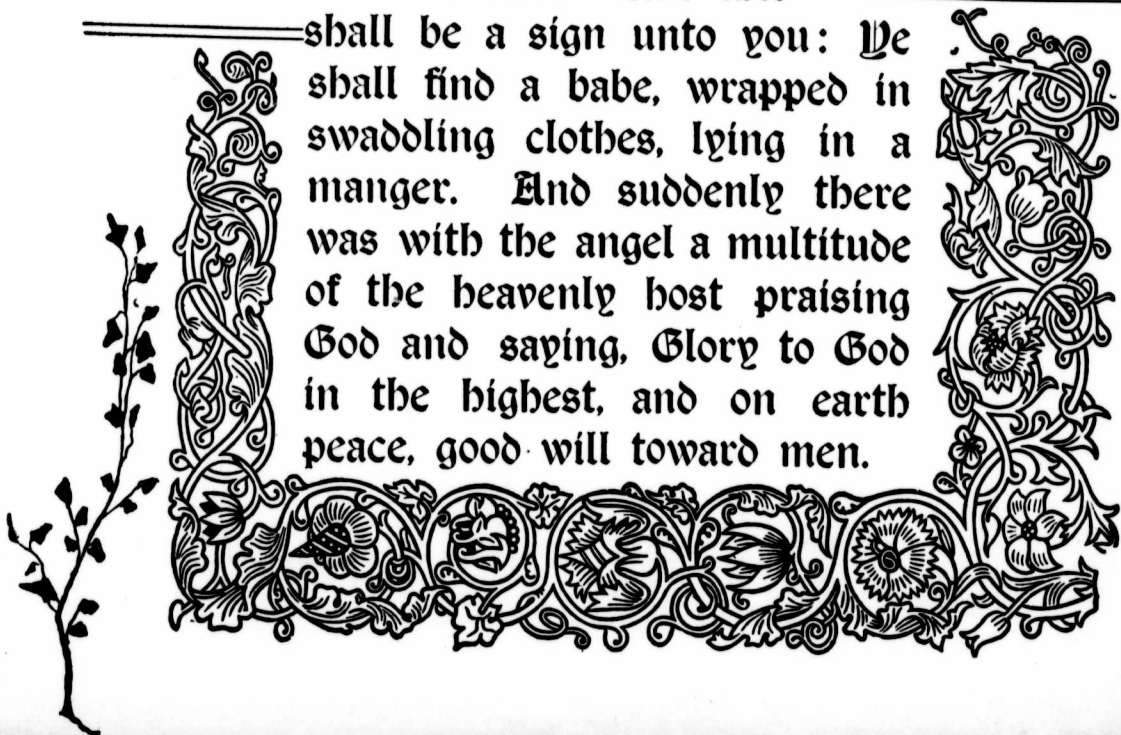


Here were in the same country shepherds abiding in the field, keeping watch over their flock by night. And, lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them: and they were sore afraid. And the angel said unto them. Fear not: for, behold, I bring you good tidings of great joy, which shall be to all people. For unto you is born this day, in the city of David, a Saviour, which is Christ the Lord. And this

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shall be a sign unto you: Ye shall find a babe, wrapped in swaddling clothes, lying in a manger. And suddenly there was with the angel a multitude of the heavenly host praising God and saying, Glory to God in the highest, and on earth peace, good will toward men.

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## Freight Rates

### A Reply to "Viator"

**I**N the issue of The Farming World of Dec. 10th last appeared an extended letter signed "Viator," which purported to be a correction of misstatements made by this journal in its discussion of the freight rates charged by Canadian railways. Some reference to the general tone of "Viator's" communication was made in the same issue, and the way is now clear for a detailed examination of his counter-statements, which he described as corrections.

It may be well to point out at the outset that "Viator's" letter gives the impression that it is a complete review of the circumstances cited by The Farming World, but that a comparison of the article and the reply (a comparison which The Farming World would suggest to its readers to make) shows that several important points are passed over by "Viator" in silence. One, for instance, is the reference to the disparity between the rates charged on oats carried from the foothills of the Rockies and on Ontario farm products.

Again, the method of quotation followed by "Viator" does not show the austere accuracy which he exhorts this journal to cultivate. His first challenge of our statements is an instance of this. The Farming World stated, practically quoting certain editorial observations of the *Globe* of May 2, 1901, that the railways which more especially serve the rural population of Ontario, "for the past twenty years have been gradually advancing their freight rates. No sweeping increases have arrested public attention, but by small advances here and there, consistently maintained the rates have crept up." Then, expressly and purely as an instance of a general advance, The Farming World added: "Twenty years ago, as an instance, the Northern & Midland Railways carried lumber to Toronto and Port Hope for \$1 a thousand feet, and now the rate is double that."

The relation of this instance to the general proposition is evident. "Viator" quotes this sentence, but suppresses the important words "as an instance," and proceeds to give an explanation of the admitted increase in the rates. Then, on the basis of this explanation, he proceeds as follows: "Then, arguing from the particular to the general, which is a vicious process, you assert that railway rates for all kinds of freight have been increased throughout Ontario in the last twenty years." It will be observed that "Viator" asserts that The Farming World quoted the instance first and based its argument upon it; whereas the fact is the reverse, the instance having been included as a species of afterthought, to illustrate rather than prove a charge

which "Viator," it will be noted, does not attempt to answer. After observing this example of "Viator's" method of argument, The Farming World does not feel especially affected by his general remarks upon correct methods of argument. "Viator" has in this paragraph (1) misquoted, (2) misrepresented The Farming World. As for "Viator's" explanation, the rate on lumber, which he discusses, was instanced at the annual meeting of the Lumbermen's Association held at Lindsay a year ago. It may be agreed that lumbering is a business in which conditions change rapidly, owing to the changing areas of production; but the lumbermen did not seem satisfied on this score.

"Viator's" defence against the charge as to the high rates levied upon shipments of apples to the Northwest comes under three heads: (1) that the story is old; (2) that the rate has been reduced from \$1.57 per hundredweight to \$1.05 per hundredweight; (3) and that anyway the higher rate (\$2.50 per barrel) is not unreasonable. This is practically an admission of the charge and a justification of the high rate. We fail to see any correction, for The Farming World was careful, as it has already been pointed out, to state that the instances given were a repetition of charges made a full year ago. The statement that the rate has been reduced we are glad to publish; it does not affect our article, which expressly avoided reference to present day rates. But it is necessary to observe that "Viator" makes no reference to the point of the whole charge, which was a comparison of the low rate charged for cattle going eastward with the high rate for apples going westward—\$1.97 a car for cattle from Prince Albert to Montreal, as against \$518 for apples from Seaforth to Prince Albert. At the reduced fare mentioned by "Viator" the charge for the apples would be not far from double that for the cattle. Why is this the case, especially when we hear that much of the movement of freight cars consists of the sending of "empties" westward to get the western cattle and grain? Are the readers of The Farming World satisfied that the rate is justifiable, as "Viator" maintains?

"Viator's" next paragraph is an excellent example of his methods of controversy. An explicit and clear statement in The Farming World as to the manipulation of freight rates so as to render impracticable the shipment of mixed car loads of fruit to Brandon is—shall we say summarized?—by a statement that this journal asserted that it was "impossible" to ship mixed car loads of fruit to Brandon; then, on the strength of the word "impossible," which did not occur in The

Farming World's article, he adds some freight rate quotations which convey the impression that such a mode of shipment is recognized by the railways. The statement by The Farming World stands untouched, and indeed unchallenged by "Viator," despite this disingenuous paragraph.

"Viator" next challenges the assertion, made by the late Mr. John McMillan, as to a charge upon apples shipped from Seaforth to the British market of five cents per barrel, or \$9 a car, more than upon apples shipped from Ingersoll or Wingham. All that The Farming World need say upon this point is that the late Mr. McMillan specifically stated that he himself had this experience. This journal is quite content to place Mr. McMillan's testimony against "Viator's" assertion. In this connection it may be well to note "Viator's" defence, founded on certain rates charged goods shipped from Ingersoll, Wingham and Seaforth, as an implied answer to the charge that railways grant treatment to competitive as against non-competitive points so much more favorable as to amount to great unfairness. As a summary of the general state of affairs in this respect may be quoted the remark made by Mr. John Macdonald, the senior partner of the very large wholesale dry goods firm of John Macdonald & Co., Toronto, upon the proposition to surrender the Intercolonial to the C. P. R.:

"At present goods shipped from Toronto arrive at their destination at competitive points in the Maritime Provinces in about five days, but goods shipped an equal distance to non-competitive points frequently take from ten to fifteen days to make the journey. Take any competitive points in Canada—London, Chatham, St. Thomas, or any other place—and you have proof of the advantage of that competition for business between railways which would be lost by the adoption of such a course as suggested by the Halifax Board of Trade. The instances to be found throughout Ontario of the advantages which have followed the advent of competing railways are too numerous and too well known to require any protracted argument in favor of competitive lines of transportation."

The concluding portions of "Viator's" letter are devoted to the rates on cattle. Here his method of argument is to assail the character of the report from which certain very telling statements were extracted; to oppose to this report "Viator's" assurance that he could not find such charges in the tables of rates; and an exposition of the vast proportions of the cattle trade from Chicago. Now, the report from which the facts cited by The Farming World were quoted was prepared in 1897 for and at the instance of the Dominion Minister of Agriculture, the author being a distinguished legal gentleman. The Farming World is quite content to accept as an authority



Group of 220 horses shipped last week to Halifax for 2nd Canadian Mounted Rifles. The gentleman in the foreground to the left is Veterinary Major Hall, Inspector for the Army; next to him is Robert Baith, ex-M.P., representing the Canadian Government, and next to him, W. Harland Smith, who is supplying the horses.

a report prepared under such circumstances. Nor is The Farming World greatly disturbed by the fact that "Viator" failed to find these differentiations in rates; the farmers of Ontario have found them. And finally "Viator's" long exposition of conditions in Chicago is rather beside the point. The discrimination against our branch lines is a grievance, and was the subject of a sharp discussion last winter; but the article in The Farming World to which "Viator" took exception dwelt, not upon this aspect of the case, but upon the fact that farmers in Indiana, Illinois and Michigan, shipping from ordinary stations and not from Chicago, are given a substantial preference over farmers on the Ontario lines. In his anxiety to explain conditions at Chicago "Viator" has entirely overlooked this aspect of the matter.

It will not have escaped the careful reader that two or three other points raised by "Viator" have not yet been considered. They are the rates on grapes, the rates on wool and the rates on clover seed. This article is already excessively long, and it may be as well to leave to a future issue the detailed examination of these cases. Several prominent fruit growers will in a future issue present some of the conditions under which they labor, and the readers of The Farming World may rest assured that right to the end the "corrections" of "Viator" will prove as valid as those examined in this article.

"Viator" exhorted this journal to be accurate in its statements. What do the readers of The Farming World think of his statements and of his method of controversy. On whose side does accuracy lie?

accurate would be difficult and is perhaps beyond the reach of the average farmer. But it is not necessary to have the accuracy of the scientist to make an estimate valuable to the farmer. If he can, as our correspondent has done, make a careful estimate of the cost as far as he knows, it will be sufficient to enable him to find out which is the most profitable branch of his farming operations. A small account book in which to enter the work put on a field, the amount of grain sown, etc., would suffice to enable any farmer to keep track of the cost of production. By entering in all the details and keeping track of the returns a farmer would soon acquire habits of accuracy and attention to details that would be of very great benefit in future work. Keeping accounts would soon become an easy task and seem just as necessary to successful agriculture as ploughing the land. The successful merchant takes stock usually at the end of the year, and why should not every farmer do so and like our correspondent this week, send some items from his account book for publication in The Farming World. Let us hear from you.

#### Mounted Rifle Horses.

On this page we show a group of horses shipped last week to Halifax for the second Canadian Mounted Rifles. These were purchased in Ontario by W. Harland Smith, Toronto, who has the contract for supplying 600 horses for the new contingent. These horses which reached Halifax in good condition are said by those who have seen them to be the finest lot ever sent to South Africa. They are strongly built, blocky horses from 14.3 to 15.2 hands high suitable for carrying 225 lbs. They are from 5 to 9 years of ages and should give a good account of themselves on the African veldt.

## Count the Cost

In our correspondence column this week appears a letter from J. N. Kernighan, giving in detail the cost of producing corn and roots during the past summer. It will pay every farmer to read this letter. Mr. Kernighan, in a very concise and practical way, shows the exact cost of producing these crops. But this is not the most important part of his letter. What is of greater value, perhaps, is the sound advice he gives to farmers to find out the cost of producing the crops they grow or the stock they raise.

In these days of keen competition and a demand for a higher quality of products it should be a part of every farmer's business to find out as near as possible the cost of producing the products of his farm. A farmer who does not do this—and how few there are who do—is lab-

oring in the dark and is entirely at sea as to the most profitable crop to grow or as to the kind of stock to raise. He may, in his ignorance by running along lines totally unsuited to his conditions of soil and circumstances. Because some one else has followed a certain line of agriculture with success is not a sufficient guarantee that the same line will be equally successful under different conditions. Every one should carefully estimate for himself and then he is in a position to act independently and follow the line which under his own peculiar conditions he has found to be most profitable.

To estimate the cost of producing a crop or of raising live stock is not such a difficult task as some would imagine. To make an estimate that would be scientifically

## Our Western Letter

Christmas Greetings. Wheat in Farmers' Hands. Live Stock and Dairy Meetings.

Winnipeg, Dec. 16th, 1901. The West sends hearty greetings to the East. A Merry Christmas to you, one and all. We're having one ourselves and may yours be e'en more joyous than ours. We wish ye well, and here's our hand out.

In discussing crop statistics, up to the present, the yield of the Territories has not been counted upon, for no accurate or reliable information is at hand. It is now placed at from 25 to 30 millions of wheat, and this amount must be added to the Manitoba crop of 50,750,000. If the figures for the Territories are nearly correct, the quantity still in farmers' hands is enormous. Up to date there have passed inspection points, Winnipeg and Emerson 22,500,000 bushels, and there were at the end of last week (Dec. 14), 10,000,000 bushels in store west of Winnipeg, in all 32,500,000, leaving, as nearly as can be judged, 43,000,000 bushels of wheat in farmers' hands on this date. This refers, of course, to the whole of the great wheat country extending west from the Red River more or less continuously to the foothills of the Rocky Mountains. Further information may modify the estimate of the crop in the Territories, but the figure given is pretty well vouched for.

The dates for the Live Stock Associations Conventions have been fixed for the 19th and 20th of February, 1902. At a meeting of the Executive Committees, held last week, it was decided to add to the usual programme of lectures a Stock Judging Institute. A Committee has been appointed to arrange the details and secure competent men to take charge of the work. An effort will be made to bring experts from Ontario and Wisconsin. In this connection, the name of a professor of the Ontario Agricultural College has been mentioned. The stock for the Institute will be secured from some of the best Manitoba herds.

The convention of the Dairy Association will follow that of the Stock Breeders'. Beside the usual programme there are likely to be several important matters for the consideration of the Dairymen. Amendments to the constitution, a proposal to exclude all but persons actively engaged in dairy business from membership, and the perennial criticisms by disgruntled kickers of every and all officials of the Society and the Government, will most likely occupy a good deal of time. In the opinion of the laity the Dairy Association of Manitoba is an institution that is living, so to speak, upon its past glories. There is,

however, work that needs doing, and if the Association will only wake up and wipe the cobwebs out of its eyes, it may still be of use to the Province and to its constituents.

At a recent executive meeting of the Horse Breeders' Association of the Northwest Territories, it was decided that stallion shows will be held next year at both Regina and Calgary instead of, as heretofore, at one place only. This looks like a good chance for some of the Eastern breeders to dispose of some of their stock. Full information can be obtained from the Secretary of the Association, Regina, N. W. T. This is a business which Manitobans have not yet entered, all our horses are imported from the old country, from Ontario, or from the United States. Horsemen in the Territories must, like us, go to those sources for their stock.

There have been many immense crops in many different parts of Manitoba, but the Hartney district has made the best showing up to date. Among the many farmers of that district who raised from ten to twenty thousand bushels of wheat, beside other produce, might be mentioned. H. Galbraith, 14,000 bushels; Reeve Henry, 13,000; Frank Hill, 10,000; F. W. Henry, 11,000; John Keeler, 15,000; Mr. Cowan, 18,000; J. D. Ross had 27,000, and C. Thomas 25,000 bushels. Reeve Henry had 10,000 bushels of oats, and C. Thomas an equal quantity. Others of the men named had 5,000 bushels and upward of oats. The yield per acre in the district was from 21 to 27 of wheat and 30 to 45 of oats.

The Territorial Government hopes to further encourage the imports of pure bred stock by offering a flat rate of \$7.50 per head on cows and heifers. They have enjoyed the very low rate of \$5.00 per head on bulls for some time past, and this concession has doubtless been as much to the advantage of the railway as to the ranchers. The present arrangement is entirely without assistance or co-operation of the railway. They have made no reductions on pure bred females, but the Government pays the difference between the \$7.50, which the shipper is required to pay, and the regular rate. There is every likelihood that this encouragement will result in a large trade with the Territories during the coming year. Ontario breeders should secure full information from the Commissioner of Agriculture at Regina, N. W. T.

Prof. Thos. Shaw, who left the Ontario Agricultural College some ten years ago, to accept a position

in the Minnesota Agricultural College, has now resigned the post he held there, Prof. of Animal Husbandry, to accept an editorial position on *The Farmer*, an agricultural paper published in St. Paul, Minn. Prof. Shaw is well known in this Province, making a visit to us almost every year as judge in the beef cattle classes at the Winnipeg Exhibition. Though not subscribing to all his pet theories, he is recognized as a man of knowledge, experience and ability. Evidently, these strong points are recognized by others also.

### "Protectionist Shorthorn Breeders."

The following from the North British Agriculturist, dealing with the action of a certain section of the American Shorthorn Breeders' Association in imposing a fee of \$100 for the registration of imported Shorthorns in the Herd-Book of that association, is to the point: "The great demand for Scotch-bred Shorthorns in America, as evidenced by the results of the Flatt Sale at Chicago three weeks ago, brings out in high relief the stupendous folly of the American Shorthorn breeders—or rather, we should say, an intriguing section of the American Shorthorn Association—imposing a fee of 100 dollars for the registration of imported Shorthorns in the Herd-Book of that Association. Protection is dear to the heart of the typical Yankee farmer, but even the Protectionist Government of the States permits the free importation of pedigreed stock for breeding purposes, as that Government is fully alive to the paramount importance of encouraging the importation of pedigreed stock calculated to improve the quality and increase the value of the live stock of that great continent. But the Protectionist Shorthorn intriguers must needs be more Protectionist than their own Government, and hence the imposition of the stupid registration fee in question. The intriguers who, by means of ways that are dark and tricks that are vain, have succeeded in carrying this motion for the imposition of that registration fee are not men who are working for the improvement of the breed by the importation of high-class Shorthorns from other countries. On the contrary, they are schemers who have got herds of their own established, and they are working this scheme for the purpose of artificially raising the value of their own stocks by making it more costly to introduce fresh stock from abroad. But, if the American Shorthorn breeders as a body find that they want fresh blood of the best quality imported from Great Britain—and that they do want such fresh blood of the best quality was fully evidenced by the results of the Flatt Sale—they must resent this scheme which is designed to make it more costly for them to procure the animals of the kind they require. The

Cattle King of America has spoken out strongly on this question; and if the American Shorthorn breeders are not blinded altogether by the Protectionism that is rampant in the States, they should see it to be

for their own best interests to give short shrift to these Shorthorn Protectionist intriguers, and the miserable devices hatched by these intriguers for their own selfish interests."

in substance and texture. The scant milker becomes a shy breeder and grows gaudy and uneven in her flesh. It is a rare exception to find a Shorthorn that will carry its flesh smoothly and evenly to maturity unless descended from good milking ancestry. The beef cow that gives a good flow of milk may be repeatedly fitted in high condition and reduced, and remain smooth, but not so with the dry cow. In the early days of the breed when it was the rule to grow large gaudy bullocks for the block, coarse, patchy carcasses were tolerated, but they are no longer wanted. The killer and the consumer severely discriminate against them. The compact tidy bullock now demanded must be thick-fleshed, smooth and even and of superior quality throughout. A good flow of milk in the dam is conducive to this standard in the butcher's bullock and in the breeding bull; and the absence of it is detrimental."



Raising the last bent of Thos. Loveless' barn.

## Beef and Milk

### Influence of Milking Qualities on the Beef Animal

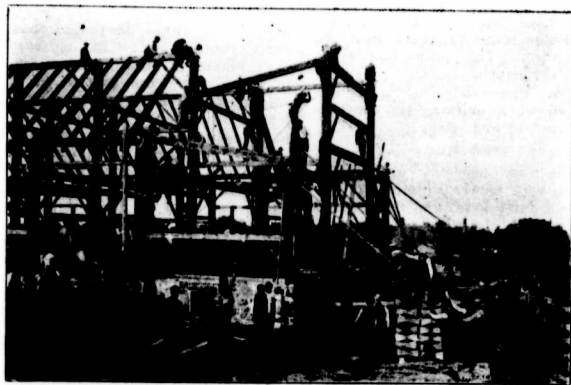
Many beef makers both in this and other countries have contended that to develop a beef breed of cattle it was not necessary to give any attention to the milking qualities. In fact, in some breeds the milking qualities were allowed to go totally neglected so long as the purely beef-making characteristics predominated. Close students of the beef-making animal claim that this is entirely wrong and in what are known as the best breeds, the animals in which the milking propensity is encouraged are better beef makers. The suppression of milk secretion tends to shorten the reproductive period of the breeding animal. The following from an article by Prof. Curtiss in a recent issue of the *Breeder's Gazette* shows this very clearly and is worth careful study by every cattle raiser:

"The characteristics of a modern beef animal of superior excellence can better be obtained in conjunction with milk than without it. The fact is now recognized and accepted by some of the foremost breeders of Great Britain. The proprietor of one of the herds of Scotch Shorthorns that is at the present time in greatest favor in America and one that has been most largely drawn on to maintain the excellence of our herds pursues precisely this policy. This is not an isolated case. The cultivation of good milking qualities in the British beef herds is the rule and not the exception. If it was the rule here there might be less occasion to import so frequently and so extensively.

"Suppressing milk secretion tends to weaken fecundity and thereby to shorten the reproductive period of the breeding animal. The best

milkers are almost invariably the best breeders in the herd. The shy breeders are rarely if ever found among the heavy milkers. Cows that do not milk well seldom breed regularly until an advanced age is reached, and what calves they do raise will be stunted unless provided with a nurse cow.

"The most important reason for combining milking quality with beef, however, is rarely considered



Putting on the last plate. The other side wins.

at all. It is a prime factor in maintaining smoothness and quality. To suppress milk is to curtail fecundity or breeding quality, and to curtail or check breeding quality tends to unsex the animal, and as a direct result the females become coarse and masculine. They not only tend to become coarse and masculine in appearance, but coarse

### Cheese and Butter Exports

The total exports of cheese and butter from the port of Montreal for the season of navigation just closed were published last week. During 1901 there were exported 1,799,075 boxes of cheese as compared with 2,075,137 for 1900, a decrease of 276,062 boxes. The exports of butter for 1901 were 412,056 packages as compared with 256,912 in 1900, an increase of 155,144 packages. An increase of nearly two-thirds in the exports of butter is very satisfactory indeed. No branch of agriculture has a better outlook before it than that of butter, and dairymen should turn their attention to it more than they do.

### An Up-to-date Barn.

We reproduce in this issue electro-tros and plans of the new barn erected last summer by Mr. Thos. Loveless, Ellesmere, Ont. Farmers who contemplate building next season will find some valuable suggestions from this plan. Everything is compact and well arranged.

## Curing Cheese in Cold Storage

In reporting some dairy meetings a few weeks ago we referred to the experiments conducted by Prof. Dean in curing cheese in cold storage. Prof. Dean has kindly sent us the outline of his work as follows, and which will be found of very great value to dairymen:

### THE PLANT.

"Our cheese-making room is the one used for instruction in cheese-making as given to our dairy classes. It contains four vats holding 30 gallons each, and two vats holding 150 gallons each. It also has a gang press, curd mill, and all other requirements of a modern cheesery. The floor is made of cement.

"The curing room is made of brick outside, and lined with matched lumber and building paper inside. It is quite well insulated. The room is ventilated and cooled in summer by what is known as a sub-earth duct, which consists of tile laid 6 feet underground, through which the air passes and is cooled on its way to the curing-room. This plan enables us to maintain a fairly uniform temperature of about 65 deg. in summer. When heat is required the room is heated by means of steam, which passes through coils of pipe placed on the walls of the room.

"The cold store is a wooden building, erected in December, 1900. It is built on what is known as the Hanrahan automatic cold storage system. The ice compartment was filled during the early winter of 1900. The chief point about the system is that no handling of ice is required after it is packed in the ice chamber. The cold air circulates from the ice through the refrigerator room and back over the ice again. The plan has given good satisfaction during the past season. The refrigerator has remained at a uniform temperature of about 40 deg. Fahr.

### THE MILK.

"The milk used for making the cheese was partly supplied by the College dairy herd, and the remainder was obtained from farmers in the vicinity of the College, who supply milk for experimental and instruction purposes. Fifteen hundred pounds of milk (150 gallons) were used in making each lot. The cheese were made in the usual way, but the curd was divided evenly among five hoops after salting, and these were pressed in a gang press. After remaining in the press for about twenty hours, the cheese were removed from the hoops, and each cheese was weighed and marked A, B, C, D and E. The average weight of each cheese was about 30 lb. The A cheese were placed directly in the refrigerator after weighing. The remaining four were placed in the ordinary curing-room. At the end of one week the B cheese were put into cold storage; at the end of two

weeks the C cheese were put into cold storage; and at the end of three weeks the D cheese were also removed to the cold store. The cheese marked E were allowed to remain in the ordinary curing-room. This work has been continued once a week since April 20 last.

### THE QUALITY OF THE CHEESE.

"The cheese were scored once a month by myself as soon as they were properly ripened, but on September 21 we had three experts come to the dairy to score all the cheese made between April 20 and July 15. The cheese were divided into three lots, and mixed with cheese belonging to other experiments, so that the scorers did not know what kind of cheese they were judging. A clerk attended each judge and recorded his score. When one lot was finished he moved to the second lot, and then to the third. In this way we obtained the separate judgment of each expert on the cheese. After the scoring was completed, the average of each judge's score for flavor, closeness, even color, and texture was obtained by adding together the number of points awarded under each heading and by dividing by three. The maximum points given for each quality were 40 for flavor, 15 for closeness, 15 for even color, 20 for texture, 10 for finish, and 100 for the total. All cheese were scored 10 points in 'finish'.

"When the averages were completed it was found that in flavor the cheese placed in cold storage at the end of one week stood first, those put directly into cold storage second, those placed in at the end of three weeks third, those put in at the end of two weeks fourth, and those cured in the ordinary curing-room last. In closeness they ranked in the order of time in which they were placed in the cold storage, those put in directly from the hoops standing in the first place with an average score of 14.56 points out of a possible 15. For 'even color' those placed directly in cold storage stood first, those put in at the end of a week second, and of the other three lots there was very little difference in their scores. In texture the order of merit was according to the time of placing in the cold storage—those put in at once standing first with an average score of 17.39 out of a possible 20. The totals were also in the same order.

"From these preliminary results, which are not to be considered as final, we may safely conclude that the prospects are favourable for curing cheese at so low a temperature as 40 degrees Fahr. directly the cheese are taken from the hoops. The chief advantages of this plan are: the uniformity of the product, the less loss of weight in curing the cheese, the improved quality of the cheese, and the fact that the manufacturers of cheese are independent of hot-weather condi-

tions and unfavourable markets. During the hot weather, factory-men are obliged to sell whether the markets are favourable or not, as the cheese kept in ordinary curing rooms deteriorate very rapidly in quality after the first two weeks, while the prevention of loss in weight would more than pay the cost of cold storage.

"We believe that the British consumer is interested in obtaining the finest quality of cheese—at as low a price as possible. It should make no difference to him whether these cheese are made in July or September. If, by a system of cold storage and an improvement in the quality of the milk furnished to our cheese factories during the hot weather, we can make a quality of cheese equal to that produced in September, it will be a great advantage to both producer and consumer.

### — A PRACTICAL SUGGESTION.

"The Legislature of the Province of Ontario at its last session made provision whereby municipalities and co-operative companies may erect cold store for the storing of farm produce, and also enacted that a sum not exceeding one-fifth of the cost of erecting cold storage should be paid to such persons. It would seem to be an easy matter for every cheese factory and creamery to have within its reach a cold store for storing dairy produce, especially during the hot season.

### Live Stock Judging at Chicago.

At the International Show, at Chicago, the students from the Ontario Agricultural College took a prominent place, being second in the list for the Spoor Trophy, valued at \$700. Last year this trophy was held by the Illinois Agricultural College, and this year it goes to Iowa. It may come to Ontario next year. The score made by the various colleges competing is as follows: Iowa, 3,756 points; Ontario, 3,510 points; Illinois, 3,488½ points; Michigan 3,326½ points; Wisconsin, 3,320 5-6 points; Indiana, 3,312 5-6 points; North Dakota, 2,825 2-3 points.

It is worthy of note that the Professors of Animal Husbandry at Iowa, Michigan and Wisconsin, who trained the students from these colleges in live stock judging are graduates of the Ontario Agricultural College and received their training at this well-known institution.

### — An Excellent Number.

The Christmas Westminster is a number of exceptional interest, perhaps the best that has been issued. Among the notable features is a striking and original article by Rev. Hugh Pedley of Montreal on "The Dolorous Elijah." "Where the Jordan is Born" is an interesting travel sketch by John Mackay. Two bright Canadian writers, Elspeth Moray and Martha Graham, have contributed stories. The number is very fully illustrated and would make an acceptable and inexpensive Christmas gift.



# Profitable Poultry

By Samuel Cushman, Rhode Island

Profit on poultry is made in various ways. The production of strictly fresh eggs for market we would place first as surest and safest in this section. Another branch which is a little more risky, is the production of early broilers which are sold when they weigh from three-fourths to a pound and a half each. They are sold during the winter and spring, and used mostly by hotels and restaurants. So far the West has not produced enough artificially raised, or winter broilers, to supply the large cities. We still have the market in the East. Large roasters are scarce early in the spring and summer and bring high

tender, they sell well in spring, and there is money in them.

The production of early ducks for market is profitable if you do the work artificially. Get them out early, and market them before natural raised ones are ready. Still there is great competition now, and there are many large plants scattered about the country raising from 10,000 to 30,000 annually. There may be money in natural raised ducks if you have a nearby market or can sell them right from your farm to the consumer. But if you dispose of them in the large cities, you have to compete with the large raiser, who has the best of it. The city poultry dealers prefer to buy of the large plants. The product is so large that there is money in handling such quantities, and the supply continues from week to week throughout the season. They would not pay a small producer as much for the same thing, and probably would not want his shipments.

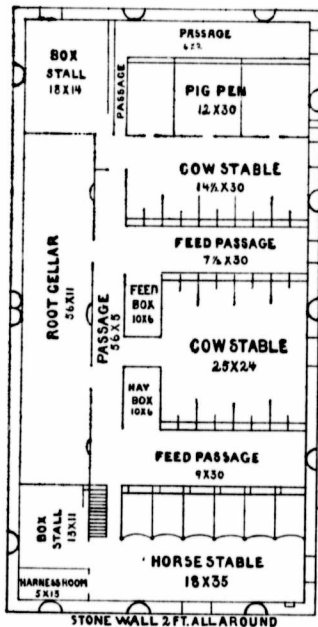
Send a trial shipment, all stock alike, to three different dealers. One will allow a very low price, and send word not to ship any more. Another firm may give a much better price, but will not want any more, and another will give the highest market price, and say: "Send us all you have," or "So many a week." Very likely the beginner's goods are not dressed to suit or fattened properly. But if they are equal to the best it may be just the same. What the dealers are willing to give depends on the stock they have on hand, or have engaged right along from someone else. They may have regular shippers who have learned their needs, and send them just what they want when they want it. They may not want to take up a new man whose supply is uncertain, and who may not dress alike every time, or whose stock will vary in quality.

One not having enough producers to get all he wants from will give you more encouragement and pay you better price. It is the dealer's business conditions more than the quality of stock you send that govern prices. The new man is an uncertain factor, and they prefer the established producer. This is discouraging to the beginner who does not understand what is back of it. There are several large duck raising plants in New England that produce 10,000 or 12,000 ducklings annually and one that produces over 30,000, besides buying from Canada thousands more naturally raised ducks which are fattened and marketed to prolong the season. The amount of profit depends on how early they are put on the market.

Money may be made on young geese grown quick and marketed in

the same way, and at present these will probably pay better than anything else if well managed. Turkey growing is also very profitable if the right stock is kept and you have the right sort of land, but few locations are suited to this branch. I would not compete with the raisers of Bronze turkeys of the West. A smaller breed like our native Narragansett turkeys, that grow plump and quickly will suit all markets.

There is also money in raising and improving pure bred poultry of all kinds and selling breeding stock to breeders about the country. There is more money in this branch if done right, and greatest loss if done wrong, and three-fourths do it the wrong way. There are greater risks and longer chances taken and much more capital is required, and it takes longer to get established in raising fancy poultry.



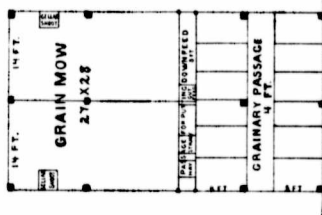
Stable in Thos. Loveless' Barn

prices over cost of production before those from the West are brought on. Even then a better quality is saleable at a good profit.

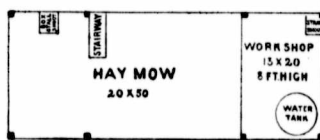
We used to think it did not pay to produce capons here in the East because we could not get so much for them as broilers and roasters. But as the males hatched with the pullets at the right time to make pullets most desirable as fall and winter layers have to compete with western natural raised chicks if dressed at any stage, it is found best to castrate them and keep them until spring, when soft stock is scarce and roasters high priced. As they grow large they may be kept in flocks without fighting, and, as their flesh keeps soft and



BARN FLOOR 14x50



BARN FLOOR 14x50



Thos. Loveless' Barn Floor Plan

Every location is different, and every market is different, and these facts must be considered in order to do the very best in any location. Find out all you can of all plans, and eventually you will be able to adopt the one combination best adapted to your own location, market and circumstances.

It used to be the best scheme in making money from eggs to hatch early, develop them early, and keep them in warm houses so as to have eggs in plenty when price was highest, in December and January.

Eggs were then cheap from April to November. So many tried this plan, but did not quite succeed, that eggs eventually became very cheap the latter part of winter. Great quantities were laid at a

time when there would under ordinary circumstances be few produced. More are now laid in the East in the last winter months than at any other time. The price of summer eggs are getting higher, and that of the late winter eggs lower. The cost of the summer eggs is much less for feed if stock has grass range on the farm, and it is best for farmers to work more for cheaper summer eggs that bring almost as much as those produced in winter.

Chicks hatched rather late lay eggs when the price is low, and they cost as much for feed as at any time in the year. The cockrels, also, when ready to dress, unless capomized and kept over, hardly pay for the feed they have eaten.

### Sell Poultry and Eggs by Weight

Why is not some definite move made to sell eggs by weight. It is much more correct than the present plan of dealing them out by the dozen. True the heavier or larger eggs sell for a higher price per dozen in most markets. But this is only a partial recognition of the fact that a larger egg is worth considerably more than a small one. The only fair method is to sell all eggs by weight.

The South Carolina Experiment Station recently concluded a series of experiments along this line. During a period of six months a record was kept of the weight of eggs per dozen and the number produced by pullets and old hens of a number of well known breeds. Generally speaking, larger eggs were laid by hens than by pullets of the same breed. Of the different breeds of hens tested the largest eggs weighed twenty-eight ounces per dozen and were laid by light Brahmas. In tests carried on at the Maine Station it was found that eggs from hens which laid the largest number were on an average smaller in size than those from hens producing fewer eggs.

Dealers and others in the trade object to selling eggs by weight, as it would, owing to the extra handling necessary and the consequent breakage, increase the cost of eggs. Another objection is, that most household recipes call for eggs by number and not by weight. But there are recipes in which the other plan is followed. As to extra handling, we fail to see why there should be any more needed than in selling by the dozen. If a dealer gets a crate of eggs he can just as easily place it on the scales and weigh it, deducting the weight of the crate, etc., as count the eggs out by the dozen. As selling by weight is much the fairer plan, these objections should leave little, if any, weight in deciding the matter.

Then, while on this topic, why should not ducks and chickens, as well as turkeys and geese, be sold by the pound. The only reason

that we can see for selling the former by the pair, is that the fellow with poor skinny birds may get better value. But what about the consumers and the fellow who has well fitted birds to dispose of. Both will fare better if all are sold by weight.

### Infectious Ophthalmia in Cattle.

Since early in the spring reports have been received from stockmen to the effect that a strange eye disease was affecting the cattle. These reports have been received from widely separated localities, showing that the disease has a quite general distribution. In some places the cattle simply have sore eyes and in others the affection is more serious and a greater or less number go blind. The loss is not so much from the number that are blinded, as to the unthriftiness occasioned, and to the diminished milk flow in dairy cattle.

This disease is infectious and when started in a herd is likely to attack a large per cent. of them before running its course. It occasionally affects sheep, but rarely horses. It has been attributed to a variety of causes, as the pollen from some plants, and to dust. The disease does usually occur at a season of the year when both pollination and dust are at their most irritating stage, but we are inclined to believe that these are only secondary causes. The germs that have been found are pus producers. This Station regards the disease as one produced by a special organism. The disease is not new, having made its appearance in this state ten years ago, and remained ever since.

The symptoms are local and general. The body temperature is raised, the appetite interfered with, and rumination checked. In mild cases these symptoms are not marked. When first affected one or both eyes are held nearly closed, the lids swell, and tears pour over the face. A whitish film forms over the eyes which may become dense. The cornea may bulge forward owing to the pressure of the abscess from within. Yellow spots from the size of a pin-head to that of a grain of corn form and from the margin will radiate reddish lines. These are abscesses and when they heal whitish scars will take their places. One eye may be attacked and then the other. The course will last from three to six weeks, but it rarely happens that there is complete blindness in both eyes.

The treatment is comparatively simple. Keep the badly affected cattle in the shade of a woods, or in the barn if necessary, during the middle of the day, to prevent aggravation. Locally, apply parts of finely powdered boracic acid and calomel, by means of a small insect powder blower. This can be done quickly with little restraint and is preferable to an eyewash for the cow.

R. A. Craig,

### Feeding Value of Wheat.

Prof. C. F. Curtis of the Iowa State College of Agriculture says: There is always considerable interest in the relative feeding value of wheat and corn at times when prices are approximately equal. Wheat is undoubtedly one of the richest and most nutritious of all the cereals used for feeding. It is a highly concentrated feed, however, and needs to be used with considerable caution. When judiciously used it gives excellent results, but if not properly fed it may produce serious injury to live stock.

Careful feeding experiments have demonstrated that wheat added to a ration of corn, oats or bran for horses is better than any of these feeds alone used, although wheat can not be safely used as a sole ration for horses without grinding and mixing with hay or other bulky feed, and even then its use would be less satisfactory than in combination with other grain feeds. For fattening hogs wheat has been found to be fully equal to corn, pound for pound, and whenever it can be bought at an equal price or lower it would be more profitable to feed it.

For fattening steers or dairy cows, however, wheat as a sole ration will not take the place of corn. The difference is 10 or 15 per cent. in favor of corn, although a ration composed entirely of corn for fattening steers or dairy cows would be improved by the addition of a small quantity of cracked or ground wheat. The same is true of fattening sheep.

Summarizing these results, then, we may say that for horses, cattle or sheep, wheat fed alone would not be equivalent in feeding values to an equal amount of corn. The average difference in favor of the corn would be about 10 per cent. When fed to fattening hogs the results would be fully equivalent to an equal quantity of corn. When fed in combination with other grains, such as corn, oats, barley or bran, wheat will improve or add to the feeding value of all of them if used judiciously.

In the use of wheat for feeding purposes, animals of all kinds should be accustomed to it very gradually and with due caution to avoid over-feeding on account of its rich and concentrated nature as a feed product. There is another point in favor of the wheat. It possesses nutrients in the way of bone and muscle forming material better adapted to the requirements of young and growing animals than corn, consequently its use in combination with corn will improve the ration for young stock of all kinds.

A simple village worthy, of mature years, not long ago went to the village store to buy candles, and was astonished to find that owing to the war, "candles was riz." "Get along!" she exclaimed indignantly. "Don't tell me they fights by candle-light."

## Correspondence

### Feeding Steers Loose or Tied.

Editor The Farming World:

A subscriber from York County wishes to know about feeding two-year-old steers loose or tied. I will give you my experience.

Last winter I fed seven steers and three heifers loose in a building 28 x 15 feet with an open shed 11 x 24. They were turned out while we were putting in the feed for them, as we had to carry the feed from the feed room into their feeding place. We also had to turn them out every day to water. They became as handy and quiet as oxen when feeding them. They were Polled Angus grades and thrived well.

If a man has plenty of straw to give for bedding, there is no easier way than I have tried to feed them. Then the manure can be hauled out every three or four weeks on to the field. The solid and liquid are both preserved and go to where they are needed for the next crop.

T. Robertson,  
Dunsford, Ont.

Dec. 14th, 1901.

### The San Jose Scale.

MATERIAL FOR ITS DESTRUCTION SUPPLIED AT HALF COST.

Editor The Farming World:

The fruit growers of Ontario are becoming more and more interested in the San Jose Scale, and the question of how to extinguish it has become one of great importance to many who at first looked upon the agitation with indifference. In the original centers of infestation the San Jose Scale has multiplied and spread during the past season more than ever before. There is no longer lack of evidence of its destructiveness, for many fruit trees have been killed by it at these old infested points. The results from the remedies used last spring when applied carefully and according to the instructions, are very satisfactory and encouraging, and the Minister of Agriculture for Ontario will again supply spraying material (whale oil soap and crude petroleum) for the destruction of the San Jose Scale, at one-half its cost laid down.

Parties wishing to take advantage of this opportunity may do so by communicating with me on or before January 30th, 1902, after which date we will not guarantee to fill orders.

George L. Fisher,  
Inspector,  
Freeman, Ont.

December 16th, 1901.

### Canadian Breeders Directory.

Editor The Farming World:

In the farming and ranching country of Western Canada there are many large studs, herds and flocks, some of them containing as many as 10,000 to 12,000 head, the

property of one man or firm. There are also many studs, herds and flocks of from 50 to 1,000 head.

In order to improve and maintain the quality of their stock it seems necessary for the owners to buy annually pure-bred breeding males, and sometimes a few females. Heretofore a number of these have been bought yearly from Canadian breeders, and also from Americans, many others have been purchased in Great Britain. Not nearly as many pure-bred males are purchased annually as should be, because ranchers have found it difficult to obtain what they want at a price at which they consider it would pay them to buy. Many, therefore, are now using range-bred grade males.

In Manitoba, Ontario, Quebec, and the Maritime Provinces also, more pure-bred sires should be used than are at present.

In order to enable the ranchers and other buyers to more readily obtain what they want, and to bring buyer and seller directly together the Dominion Department of Agriculture decided to issue a directory of the Canadian breeders of pure-bred stock in each province, arranged alphabetically, giving suitable data concerning each stud, herd, and flock. Circulars were sent out to all the breeders in Canada whose names could be obtained and those who failed to reply received a second circular. Finally, that no one who desires to have his name and data concerning his stock published in the directory might be overlooked, it was announced in the leading agricultural and weekly journals that a directory was being prepared, and that breeders were invited to send full information regarding the breeds of stock kept by them. This information was compiled in the form of a bulletin which contains the names and addresses of all Canadian breeders of pure bred stock as far as these could be obtained, and a directory of the stock for sale as furnished by each. A copy of this bulletin may be had on application to

F. W. Hodson,  
Live Stock Commissioner,  
Department of Agriculture, Ottawa,  
Dec. 14th, 1901.

### Cost of Growing Corn and Roots.

Editor The Farming World:

In reply to your request for farmers to write you with regard to the past year's experience, I would give my experience of the cost of growing a field of corn and roots. How few of us ever give a thought as to the cost of growing any crop, or the cost of producing a pound of beef, pork or butter, or the most profitable crops to grow. And although we cannot figure our expenses as closely as can a merchant, yet we would find it much more pleasant and profitable, if we kept accounts of our farming operations as well as cash accounts.

In my rotation of crops corn and roots follow oats sowed after sod, I think this preferable to planting after sod, as many practice, owing to the danger from cut worms. Part of the field was seeded with Mammoth clover at time of sowing oats, as an experiment, and I was well satisfied with the result as it was cheaper than fall ploughing the land and also required much less manure. The balance of the field was gang-ploughed immediately after harvest, and single-ploughed later in the fall. The mangold ground was manured before ploughing, and harrowed and cultivated to start weed seeds, and then ribbed before winter set in. This ribbing should be practiced on all lands where possible as the ground is well pulverized by frost, and dries out faster in spring. In the winter manure was applied to the corn ground, and spread from the sleigh. I have practiced the spreading of manure fresh from the stables for twelve years, and think it a very satisfactory plan. In estimating the cost of production of a crop, it is almost impossible to arrive at the cost of manure as moist years use up more of the manure the first crop than would a dry year.

The mangold ground was harrowed the first day in the spring that the ground was dry, to break up the crust, and prevent evaporation until grain seeding was finished, when it was cultivated twice, well harrowed and rolled, and then ridged and sowed the 7th of May. I find light ridges much preferable to sowing on the flat, owing to the convenience of thinning. Before drilling I applied salt to a part of the ground but could see no effects on the crop. For mangolds and sugar beets I found the cost per acre for labor to be \$20, seed 75c, manure \$14, and rent \$3. Total cost of \$37.75, with a yield of 630 bushels or a cost of 6c per bushel. As we had a very dry season in this locality the yield was much smaller than it would otherwise have been, but still they were a fair crop.

The turnip ground consisted of part of a field seeded with clover, which was allowed to grow until the last week of May, when it was ploughed under, together with a light coat of manure. I used a skimmer on the plow, and immediately rolled and left for two weeks when it was cultivated, harrowed and ridged, and sowed on the 17th of June. The ground with this treatment was very clean and a few thistles were the only weeds seen. We had no rain for six weeks and so a very small percentage of seed germinated, and there was only about half a stand. The cost of labor per acre was \$9.50, seed, including clover, \$1.25, manure \$7, rent \$3, total \$20.75. The yield, which was just about half a crop, was 350 bushels at a cost of 6c a bushel. This was just the cost of mangolds but owing to causes mentioned before the turnips were far from an average crop.

The potato ground was treated

the same as the turnip ground and was planted the 3rd of June, ground harrowed after planting. Cost of labor per acre \$18.50, seed and Paris green \$5.50, manure \$10, rent \$3, total \$37. Yield 160 bushels at a cost of 23c a bushel.

In the 10½ acres of corn planted two acres of it was comparatively new land and received no manure, and was ribbed in the fall. Half an acre was on clover ploughed under in the spring, and received a light coating of manure in addition. The balance of the field was heavily manured and there was practically no difference between the half acre and the balance of the field in yield, though it cost much less to produce, and the ground was much cleaner. The corn was planted with a Segment planter, a cheap and very reliable hand planter, and as the crows pulled up quite a lot, the field was resown, which not only increased the cost but also made the corn much later. The hills were 40 inches apart. The ground was well harrowed after planting whenever it required it, until the corn was up. I tried a weeder but was not satisfied with it, but think it would work better on clay land. The crop was cut with a hoe, which is away ahead of either the sickle or binder. With corn in hills a man will cut from two to three acres a day, and will cut it right at the ground, thus doing away with the long stubble left by the binder. In filling the silo a blower was used and I found the best way of spreading in the silo was to hold a scoop shovel at the mouth of the pipe, when by changing the angle at which it was held, the corn could be thrown to any part of the silo, and was much more solid than when spread with a fork, and also better mixed.

The cost of ganging 10 acres, allowing \$2 per day for man and team, was \$7, ploughing 2½ acres \$4, ribbing two acres \$1, ploughing 8 acres twice fall and spring \$20, harrowing seven times \$7, rolling once \$1.50, marking \$1, planting twice \$5, scuffling four times \$9, hoeing twice \$6, cutting \$5, filling silo two days with engine and box and 12 men and four teams \$50, making cost of labor \$116.50, seed \$3.50, manure \$110, rent \$31.50, making a total cost of \$261.50. The yield was 165 tons, which was put in silo at a cost of \$1.58½ per ton.

J. N. Kernighan,  
Benmiller, Ont., Dec. 13th, 1901.

### Cost of the Bacon Hog.

Editor The Farming World:

I am a subscriber and reader of your paper. In this week's issue I notice an article from Mr. R. L. Holdsworth, with reference to the bacon hog and its cost of production. His opinion, as therein expressed, causes me to feel timid about giving to the readers of The Farming World figures such as I have as to cost of production of ten hogs now on hand and nearly ready for marketing. But notwith-

standing my timidity I will give them.

There are ten pigs farrowed July 10th, 1901. Now it is always wise to begin at the beginning or as near there as we can well get. The dam, a pure bred Berkshire of good type, cost for food up to eight months old \$6.25, add to that \$2, her supposed value at six weeks old, as they went for pork and not at fancy prices, because no one apparently wanted anything but bacon hogs. There is the foundation and cost of same at eight months old. I mated her with a pure Tamworth, cost \$1. Cost of food from time of service till pigs were farrowed, \$4, for ground oats, (grass free). Food for sow while suckling young pigs for six weeks, six bushels grounds at 50c, \$3.00; (rape free), to which sow and her pigs had free access after young pigs were one week old. Now the pigs were weaned at six weeks old and one ton of shorts bought at \$16, and Bibby's calf food, \$2, the latter as a starter, as we had not milk for them. This followed by 24 bushels wheat at \$1.10 per bushel, \$26.40; 30 bushels barley at 70c per bushel, \$21; and 42 bushels of oats at 60c per bushel, \$25.20; grinding of above named grains, which weighed all told 4,350 lbs., at 5c per cwt., \$2.17. Keep in mind these hogs had a free pass to the rape field whenever they chose to go, and since snowed off the rape, have had 30 lbs. pulped turnips per day for 20 days, 10 bushels of turnips at 8c per bushel, 80c.

Now if my addition is correct the above items of cost amount to \$109.82, minus rape consumed, and when that amount was consumed said ten hogs weighed 1,700 lbs., say at 6c, \$102.00. Oh! Cost \$109.82, and only worth \$102. Reckon I will have to count the dam worth the deficiency over and above what she was worth as a foundation on which to figure.

In this case it is true, there is no money in the long-nosed bacon hog. But he or they furnish a good home market for farm products, where a farmer gets his money for his grain and still holds the grain in the form of manure of good quality put back into the land to grow more grain to raise more hogs, etc. I might add, I had five acres of rape sown in June for sheep and lambs for fall feeding. Then immediately after the fall wheat was harvested I worked the said stubble land and sowed it to rape, and on the latter is where most of the hog pasturing was done, and do not charge the hogs anything for what they consumed, as I reckon the good done by early ploughing and cultivation (which was thorough), then the rape either eaten or ploughed under, which meant manure in either case, amply paid all expenses in connection therewith, without charging the hogs for what they consumed. I believe if Mr. R. L. H. would try one lot of Berkshire-Tamworth hogs he would be fully satisfied with re-

sults. They are no more trouble than his little, round, plump, old-timers. And if he has an ear for music 10 of my kind can furnish more than 40 of his kind. It's second nature to them, and sing thy will.

Thanking you for space and wishing you every success, I am

Yours truly,

Isaac W. Cross.

Bond Head, Dec. 13th, 1901.

Note.—This is a pretty clear statement and we would be glad to have more of such for publication, not only as to the cost of producing the bacon hog but as to the cost of other products sold off the farm. But has not our correspondent placed too high a value on the wheat and oats fed. \$1.10 would be more like the price of 100 lbs. of wheat than one bushel. Even at present high values 60c per bushel is higher than the Toronto market price, which is about 50c per bushel. At country points oats would hardly be worth that much. If we take correspondent's figures of feed consumed and put a value of 75c per bushel for wheat and 50c per bushel for oats, which are more in keeping with present values his total estimate of \$109.82 for cost of production will be reduced by \$12.60. This would more than cover the loss on feeding and leave a balance of about \$5 on the right side of the account. The value of the manure from such feeding is considerable. But it seems to us that a much more economical line of feeding might be followed, which would reduce the cost very much and yet produce as good results in the way of high-class bacon as our correspondent obtained.—Editor.

### Spraying Potatoes.

Editor The Farming World:

The following from a correspondent in a recent issue of the Maine Farmer will be of interest to potato growers:

"In your issue of August 8th I told you of an experiment which I was conducting, and now will give the results. Where Bug Death was used I got a yield at the rate of 210 bushels of large and 30 bushels of small potatoes per acre, and where I used Paris green the yield was 170 bushels large and 40 bushels of small per acre.

The cost of Bug Death was three applications of 15 lbs. each, 45 lbs. at 8c, \$3.60. Cost of Paris green, five applications of one lb. each, five lbs. at 20c, \$1.00. Difference in cost in favor of Paris green \$2.60. Difference in yield in favor of Bug Death, 40 bushels.

Now let each one draw his own conclusions in regard to which agent is the cheaper and better to use.

I applied Bug Death at the rate of fifteen lbs. per acre at each application and never saw vines more thoroughly freed from bugs than these were twenty-four hours after the first going over and let me say right here that it killed the bugs

and didn't drive them as some one has declared. I think fifteen lbs. per acre at each application is sufficient to do the work, but if the vines were quite large and badly infested with bugs, it might be advisable to use twenty lbs., for the more you use (within bounds of reason) the better it is for the vines. In Bulletin No. 68 from our Experiment Station, Prof. Woods has said nothing about the yield of potatoes from the pieces where his experiments were conducted. I think it would have been much more interesting reading had he done so, for no farmer raises potatoes for the sake of killing the bugs. It is the potatoes he is af-

ter. Again in regard to the cost of applying Bug Death I think he is lame for it is as easily applied as Paris green. I prefer to apply in the form of spray."

Bug Death is in the form of plaster for putting on potatoes, etc., all ready for use. It is made of chemicals. It will not hurt the vines a bit. It is manufactured in Canada. I would like to hear through your valuable paper if any person has used it. I will be glad to answer any question that may be asked regarding it. I am going to carry on experiments with it myself next summer.

W. B. Roberts,

Sparta, Ont.

## Practical Pointers for Hog Raisers

(Continued from last issue.)

The following are the questions to which the replies appended below are answers:

1. Is it advisable for the average farmer to raise fall litters of pigs?
2. Are fall litters more profitable than spring litters?
3. What method would you advise for housing fall pigs during the winter?
4. What kind of food would be best to winter them on?
5. When would be the best time for marketing fall pigs?

H. J. DAVIS, WOODSTOCK, ONT.

1. Yes, if suitable buildings are provided and litters farrowed in September.

2. No. Spring litters can be raised at a greater profit than fall litters.

3. A fairly warm, well ventilated pen with plenty of sunlight, and exercise on sunny days.

4. Warm or steamed feed will give best results. Mangolds, turnips or sugar beets pulped with meal mixed and let heat for some hours answer well. Plenty of charcoal should be kept for them, and skim-milk with a few cobs of corn daily makes an excellent ration.

5. From February until June for fat pigs. Often fall pigs can be kept thriving well and be sold as stockers at a better profit than to make them fat, but above all things the farmer should have the proper style of pig to breed from. This is where the profit begins.

N. S. PALMERSTON, WALSH, ONT.

1. If a farmer has a comfortable place to keep his pigs in I think it quite advisable to raise fall litters.

2. Not more profitable, only that one may have more advantage in the time of the year to market them.

3. Housing fall litters in a comfortable hog house with sleeping places above floor or around a good straw stack keep them dry and warm.

4. Milk and wheat middlings or field roots boiled and wheat middlings mixed.

5. Marketing pigs in May, June and July.

W. C. SHEARER

The following answers to questions regarding breeding and feed-

ing pigs are according to my experience.

(1.) Yes.

(2.) Yes; because September and October litters can be marketed in June, July or August, when hogs are generally at the highest price in the year.

(3.) A good frost-proof, frame hog-pen is better than a stone or cement one, and have the pigs lie on a raised plank floor.

(4.) A cheap winter ration consists of 3 feeds daily, mangels in the morning, milk at noon, and a good feed oats, barley and flax, "grown mixed," ground and fed dry at night.

(5.) Fall pigs usually come on the market in mid-summer, when the best prices of the year prevail.

### Winter Pigs

Mr. Arch. McColl, Aldboro, Ont., in addition to his answers already sent to our list of questions on the hog industry, and published last week, sends us the following on winter pigs and which fits in well with the discussion now going on on this subject:

The price of hogs has again advanced. The drop this fall has lasted a shorter time than for years. Anyone who has watched the markets at all knows that the last half of October and the month of November have the lowest hog markets in the year, and this, not because the old country markets are not as good as at other times, but because every man who owns a sow has her farrow about the first of April, and seven and eight months after the country is flooded with hogs, a fact of which the packers are quick to take advantage. The lesson to be learnt from this is that it will be wiser to have the crop of young pigs spread over the whole year more than it is at present. We often hear the question asked, do winter pigs pay, and answer without hesitation that they do where conditions are at all favorable. Of course, in raising winter pigs people must be prepared to take proper care of the sows and not allow them to have their beds in the manure pile or in a fence corner. It may not always

be possible for every farmer to have expensive frost-proof buildings for his pigs, but every farmer has it in his power to provide a shelter that will keep the sow and pigs comfortable without going to any great expense. About the cheapest shelter for hogs in winter that we have seen can be provided without much expense and with very little labor. Just before threshing time take some blocks of wood and build a pen whatever size you desire under where your straw stack is to be built. Use the blocks for posts and cover over with cheap lumber, rails or poles and then build the stack on the top and around three sides of your pen. The pen will not need to be more than three feet high and a small door will admit the hogs. It will be better and healthier for the pigs than sleeping in wet straw, from which they come out steaming on a cold morning. This style of pen can be made warm enough to prevent even small pigs suffering from frost even in the coldest weather. Of course, to raise pigs in winter, and to do it cheaply, it is almost necessary to have roots, as green food of some kind seems to be almost a necessity for the production of cheap pork. In this western district where corn is the cheapest and most profitable crop we can grow, and where, owing to the impossibility of successfully growing peas on account of the ravages of the bug, corn will continue in the future, as it has in the past, a large element in pork production. By sowing more barley and oats and mixing these grains with corn a class of pork can be grown that will meet with very little disfavor on the part of the consumer.

Breed is another very important factor in the production of high-class pork. Poland Chinas and Duroc Jerseys are claimed by all experts to be deficient in the qualities that go to make a number one product. To feed these breeds largely on corn, a feed that is not claimed to produce first-class pork, is only making bad worse, in other words is feeding poor feed to a poor quality of hog, and two poors do not by any means make a good. On the other hand we have other breeds which have in themselves the qualities required to produce first-class bacon. These breeds will produce a fair quality of pork, even if the feed is not quite so good. By using judgment in feeding the grains that we can grow to advantage and breeding the class of hogs that the packers ask for and the old country markets demand, we can easily maintain our reputation for good pork and always be able to demand the top price for our product. So long as we are able to meet the taste of the consumer, so long is a good price assured us, but in raising pork as in everything else, "eternal vigilance is the price of liberty." If every farmer does his little best to have his hogs as good or a little better than anyone else's, so long will he be doing his duty to himself and to his country as well.

# The Sugar Beet World

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

Edited by JAMES FOWLER

## Sugar Beetlets

The extirpation of weeds is of the greatest importance in the growth of the sugar beet.

Without the use of the hoe you cannot expect a good crop.

Every successful beet grower knows that sugar must be hoed into the beet.

Intense cultivation will make the poorest land grow good sugar beets.

The cultivation of the sugar beet is the best hope of agriculture at the present time.

It is with deep cultivation that the best results are obtained, both as to quantity and quality.

Ideas as to the necessary qualities of a soil for the growth of the sugar beet have changed during the last ten years in a remarkable manner.

Formerly we believed that we should never be able to grow beets, and especially beets rich in sugar, on any other kind of soil than light loam rich in humus.

When sugar beet is grown on a farm, as much wheat is harvested from three-fourths of the area as from the entire area of an ordinary farm of the same size without beet cultivation.

It is not to be left out of sight that the benefits of sugar beet cultivation are by no means confined to the remunerative production of the crop and to a share in the profit of a sugar factory.

The indirect benefits are as great as the direct.

Be sure that your beet field is well drained.

A soil naturally cold can be rendered warm if sufficient quantities of lime are added to it.

## Baden.

Acreege contracts are still under way. It has been found necessary to extend the territory in order to get the supply of beets required, and arrangements are made to bring in a large quantity by rail. About one-half the quantity required will be delivered by wagon. It is expected after the first year no difficulty will be experienced in getting all the beets required to run a factory of 600 tons per day, capacity within a radius of a few miles.

## Berlin.

Representatives of the Ontario Sugar Company have been here during the week preparing the preliminary work for the sugar factory. Five thousand acres of sugar beets are under contract, and when 1,000 acres more are secured the work of the agriculturist along that line will be closed. No factory in the United States has ever started under so favorable circumstances as regards acreage as now present themselves to the Ontario Sugar Company the first year.

## Galt.

Stock subscriptions for the sugar factory at this point are being taken. Already considerable has been subscribed, and it is expected the balance required will be forthcoming in the next few days, and work upon the factory will proceed at once. The by-law covering the privileges required by the company will be voted upon at the municipal elections and will carry without doubt. Engineers have laid out ground. The plans are completed and everything points to a successful issue of the project.

## Analysis of Limestone.

### Comments on their Composition

At the lecture given by Dr. W. H. Wiley before the Experimental Union at Guelph on sugar beets, some discussion arose as to the quality of limestone required, some contending that limestone containing so much as 7 per cent. of car-

bonate of magnesium, while "ye editor" placed the amount at something above one per cent., could be worked to advantage. The following tables from celebrated French and American authorities will be of interest:

(Messrs. Gallois and Dupont, Paris.)

SUBSTANCE.	1		2		3		4		5		6		7		8		9		10	
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	
Moisture.....	4.10	5.10	7.25	4.15	4.17	6.25	5.16	.52	1.21	.11										
Sand, clay and insoluble matter.	4.50	5.15	4.90	2.15	3.07	3.17	2.35	.285	.55	.27										
Organic matter.....	1.20	1.17	1.37	1.05	.97	1.12	.86	.80	.41	.15										
Soluble silica.....	2.10	1.75	3.30	1.05	.98	.64	.56	.96	.29	.03										
Oxides of iron and alumina (FeO <sub>3</sub> , Al <sub>2</sub> O <sub>3</sub> ).....	.37	.41	.27	.17	.19	.15	.20	.32	.23	.....										
Carbonate of calcium (CaCO <sub>3</sub> ).....	85.86	85.12	81.67	90.13	88.65	87.93	90.03	93.80	96.56	99.10										
Carbonate of magnesium (MgCO <sub>3</sub> ).....	.96	.47	.59	.75	.95	.50	.45	1.81	.50	.....										
Sodium and potassium (Na <sub>2</sub> O, K <sub>2</sub> O).....	.05	.06	.....	.10	.01	.....	.....	.....	.....	.....										
Undetermined.....	.87	.77	.85	.45	1.00	.24	.39	.34	.32	.34										
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00										

Nos. 1, 2, 3 and 4 are bad, Nos. 5, 6 and 7 are passable, and Nos. 8, 9 and 10 are excellent.

Magnesium is not objectionable, so far as the operation of the kind is concerned, except in the presence of silicates, but it introduces difficulties in the purification of the

juice and forms incrustations on the heating surfaces of the evaporating apparatus. It forms fusible silicates at high temperatures, and thus increases the tendency to "scaffolding". The objections to the sulphate of calcium are practically the same as to magnesium.

(G. S. Dyer, Cleveland, Ohio.)

CONSTITUENTS.	Good	Passable	Bad
	(Colton).	(Oro Grande).	(A. French)
	Per cent.	Per cent.	Per cent.
Calcium carbonate.....	98.00	94.306	81.67
Magnesium carbonate.....	4.53	1.815	2.50
Iron and alumina.....	1.086	.929	.37
Silica, sand, etc.....	.281	.800	8.20
Moisture.....	.054	.038	5.25
Organic matter and MgSO <sub>4</sub> .....	.....	.701	1.57
Undetermined.....	.116	1.281	.64
	100.000	100.000	100.00

Magnesium is not particularly harmful in quantities not to exceed three per cent.; if more, it silicates in the burning, and if abundant causes a false alkalinity of the juice besides incrustations on the tubes of the evaporators and

vacuum pan. Calcium sulphate presents the same faults as magnesium, and proportionately lowers the saline co-efficient of the product, thereby hindering the crystallization of sugar.

## Growing Beets for Profit

The following is from a lecture delivered by Dr. Maerker, Privy Councillor of Germany, to the German Agricultural Association at Crane on Brahe: What is essentially the best soil for beets?

If you put this question to me, I am in a difficulty as to what reply to make. For our ideas as to the necessary qualities of a soil for the growth of the sugar-beet have changed during the last ten years in a remarkable manner. Formerly we believed that we should never be able to grow beets, and especially beets rich in sugar, on any other kind of soil than light loam rich in humus, such as we have in the Magdeburg district, on the northern border of the Harz, and in parts of Brunswick and Hildesheim. But when later on land owners felt the need of giving their acres a rest from beet growing, they gradually extended their beet cultivation to the lighter soils; they turned from the essentially loam soils first to the sandy loams, then to the loamy, and lastly to the light sandy soils; and in fact, on these last, if they only possess the necessary moisture and are properly manured, we succeed in growing as good beets as on loam, so that we may say that the type of soil suitable for growing beet is by no means a restricted one, but that any even moderately useful agricultural land appears to be suited for the cultivation of the crop. At most we might exclude heavy clay soils, which are certainly the least adapted to the growth of the sugar-beet; but, if the necessary means are employed, even they may be rendered suitable; the means consisting mainly in the systematic employment of lime to modify the heavy nature of the clay soil so as to allow the beet to root deeply, to warm the soil, and to render it readily workable. If this be done, sugar-beet cultivation may be profitably carried on even on the heaviest clays. This has been proved in the most convincing manner, and we therefore arrive at the conclusion that there is in fact no kind of soil, with the exception of the driest sand drifts, on which the sugar-beet may not be successfully cultivated, if we only understand what are the measures necessary to make it thrive.

If I now pass on to the third requisite for sugar-beet cultivation, it urgently requires both a warm soil and a warm sub-soil. If we wish to define what constitutes a cold soil, we understand by a cold soil one in the sub-soil of which there is stagnant moisture, water which has no outflow. The water causes coldness, and cold is the greatest enemy of the sugar-beet, for it both diminishes the quantity and injures the quality of the crop in an incalculable degree. It is, in fact, correct to say of such a soil that it is unsuitable for the cultivation of the sugar-beet. But it must by no means be assumed that

such a soil is wholly and for ever unfit because it is less suitable than a soil with a warm, well-drained sub-soil.

A further requisite, absolutely essential in the case of soils where there is stagnant moisture in the sub-soil, is, therefore, the carrying out of judicious drainage. You must not think, gentlemen, that the prize has fallen to us, who are in the centre of the beet cultivation, all at once and without exertion; on the contrary, it has required hard and tedious work to enable us to reach the position which we have now attained, and, with us, drainage, wherever necessary—and it has been necessary in very many places—has long since been carried out, and with the most beneficial results, not only to beet growing, but also in the case of other field crops.

Now, I am unacquainted with the conditions in which you are farming here, and I do not know whether drainage is extensively required; but I cannot divest myself of the impression that your soil is in many places in great need of drainage. Wherever we see water standing in the hollows of the fields, we may be quite sure that there is need for drainage, and that, if the necessary means are at disposal, drainage work should be carried out without delay. It may probably not always be a question of systematic drainage of the entire field, but only of those places where it is absolutely necessary that the water should be carried off. In all probability you will secure good results if you thus effect partial drainage; but I must lay down, as an indispensable requisite of sugar-beet growing, that, if there be to any great extent stagnant moisture in the sub-soil, thorough drainage must be carried out.


A further and, indeed, the most important condition of all for the successful cultivation of the sugar-beet is the presence of a sufficiency of lime in the soil; without this, the hope of a good and profitable yield of sugar-beet would be difficult of fulfilment. But this evil is easily to be remedied; for, if there be not sufficient lime present in the soil, it can easily be furnished by judicious liming; and even in our district, where the cultivation of the sugar-beet has been very successfully carried on, the requisite store of lime was not always at the outset present in our soils. I am not aware whether your soils here are poor in lime, and therefore need to be supplied with it. But, gentlemen, the question is so important a one, not only for the cultivation of sugar-beet but for the production of farm crops generally, that it should be solved without delay. It is, as I have said, the most important of all agricultural questions. For beets not only need ample quantities of lime for their nourishment, for the

direct satisfying of their lime requirements, but the indirect effects of the lime are more important still.

A soil, which when it is saturated with the moisture of winter, forms heavy clods, and is, therefore, in the spring, only capable of tillage late and with difficulty, loses at once this tendency to form clods if the necessary quantities of lime are applied to it. A soil naturally cold can be rendered warm, at least on the surface, if sufficient quantities of lime are added to it. A soil which has an adequate store of lime brings into activity all the constituents of the manures applied to it, not only those of dung, but also those of artificial manures, much more rapidly than soils in which such store of lime is not present. The plant-foods introduced into the soil in manures are gradually, in the course of absorption by the soil, in great part converted into an insoluble form, and in that insoluble form they cannot at once be dissolved by the water of the rainfall. To render them soluble, it is first necessary that carbonic acid should be developed in the soil, and that this carbonic acid should be dissolved by the moisture in the soil. Only then this soil moisture, containing carbonic acid, capable of quickly and readily dissolving phosphoric acid, potash and other food stuffs and of supplying them to the plants, thereby rendering possible the production of a heavy crop of beets rich in sugar.

I therefore hold the solution of the question whether your soil is poor or rich in lime to be a very important one; and if you are thinking of cultivating the sugar-beet on a more extended scale than hitherto, your first care must be to satisfy yourselves that you have a sufficient provision of lime in the soil. But you can satisfy yourselves on this point with great ease; for, fortunately, the question whether a soil is poor or rich in lime is one which the experienced agricultural chemist can readily determine in the laboratory, and to which he can give the agriculturist an exact answer. If we ask a chemist to analyse a soil for phosphoric acid, we by no means ascertain thereby whether it possesses sufficient quantities of soluble and available phosphoric acid; for there are soils in which

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chemical analysis shows large quantities of phosphoric acid, and which, nevertheless, are very responsive to a dressing of it, because the phosphoric acid contained in them is with difficulty soluble, so that they cannot supply sufficient quantities of it to the plants during their period of growth. In the case of lime, however, which only comes into question as humate or carbonate of lime, the chemist can accurately determine by analysis what are the requirements of the soil; and it is only necessary for this purpose to take spits of soil systematically from representative spots and subject them to examination.

Therefore, gentlemen, if you think of engaging in the cultivation of the sugar-beet, then—and with this I shall conclude what I have to say about the fourth requisite—keep the lime question steadily in view. Do not be surprised if, having previously given no lime, you do not get a very good crop, and do not in the first place lay the blame on other causes, but be convinced that it is the deficiency of lime that must first of all be remedied.

The fifth requisite for growing the sugar-beet is deep cultivation. Without a soil deeply loosened and exposed in winter to the atmosphere, beet cultivation cannot be successfully carried on. The beet requires a deeper tith than other plants, because it can only with great difficulty overcome resistance in the soil. It goes very deep with its tap-root, and if it meets with strong resistance in the soil it does not form its tap-root, on which it is greatly dependent, in a sufficient manner, and the natural consequence is that the produce is small. Therefore, deep cultivation is an indispensable requisite for growing sugar-beet.

#### Feed 4,000 Sheep.

That the refuse from the sugar factories is to cut considerable of a figure in the future development of the industry in Michigan is being evidenced each year. This season all of the molasses from the Michigan factories that has heretofore gone to waste will be utilized and become a source of revenue. Another important advancement for the season is that of utilizing the pulp for feeding purposes. Messrs. W. H. Gilbert, of Bay City, and Manager Lorenzo Boutell, of the Lansing Sugar Company, have concluded to embark in an enterprise that will be watched with interest in Michigan and an undertaking that stamps those gentlemen as being men of enterprise. Mr. Gilbert is the largest individual beet grower in the world and he has all confidence in the possibilities of the industry. He has seen the possibilities of utilizing the pulp and getting from 10 to 15 cents per pound for it by feeding it to lambs and in consequence, in company with Mr. Boutell, they have purchased 4,200 Montana lambs and the same are expected to arrive in Lansing Fri-

day of this week where they will be quartered in pens and the feeding commenced. The sheds are being fitted up in a most modern manner and in such a way that the feeding may be cheaply and rapidly

done. About 300 lambs will be placed in each pen and the feed will consist of clover, hay and beet pulp, and something else not yet determined on to make up a good ration.

OTTJ MEINSHAUSEN, Pres., Treas. & Mgr.

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# The Agricultural Gazette

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

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

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

### BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers 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 10th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

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

### FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular 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, trustworthy man, one skilled in the care of horses, cattle, hogs and sheep, and capable of taking charge of the farm in the absence of the employer. Willing and able to do all kinds of farm work. Good moral character. No. 871. a.

Wanted.—A man who thoroughly understands farm work, good milk-er and teamster, Scotchman or Englishman preferred. Salary \$17.00 per month, beginning March 1st, for 9 months. No. 867. b.

Wanted.—A good farm hand, willing to work, to feed hogs and export cattle, a good milk-er, must be steady and reliable. A middle aged man preferred. Salary \$225 to \$240 per year. No. 868. b.

A good man wanted for general farm work, must be reliable and trustworthy, kind to stock. Salary \$170 per year. No. 869. b.

A good man for general farm work, must be reliable and trustworthy. Would prefer one who has had some experience in bush work and one that does not smoke. No. 870. b.

### Situations Wanted.

Wanted.—A position by a married man, on a dairy farm as

cheese or butter maker, who has had thirteen years of experience, and can give good references. No. 963. a.

Wanted.—A position by a young man on a dairy farm as butter maker or taking care of dairy cattle. Has had a great deal of experience both in dairy and general farm work. No. 964. a.

Engineer, aged 50, wants a position to take charge of machinery on a farm, willing to assist with general work. Also is a fair carpenter. No. 962. b.

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

### Winners in the Dairy Test at Guelph.

Class 41, Section 1.—Shorthorn cow, over 36 months.—1st prize, L. D. Currie, Hillsburg; Bonnie Doon; total score 113.16. 2nd prize, A. W. Smith, Maple Lodge; Irish Ivy; total score 112.64. 3rd prize, James Brown, Norval; Indian Rose; total score 109.50. 4th prize, H. K. Fairbairn, Thedford; Jubilee's Julia; total score 94.90. 5th prize H. K. Fairbairn, Thedford; Golden Gem; total score 69.82. Commended, Alex. McKinnon; Amelia Maud; total score 50.26.

Class 41, Section 2.—Shorthorn Heifer.—1st prize, H. C. Graham, Ailsa Craig; Belvedere 3rd; total score 79.10. 2nd prize, H. K. Fairbairn, Thedford; Juliet; total score 62.52.

Class 42, Section 1.—Ayrshire Cow, Over 36 months.—1st prize, W. M. Smith, Scotland; Annette; total score 113.44. 2nd prize, N. Dymont, Clappison; Nellie Gray; total score 108.56. 3rd prize, H. & J. McKee, Norwich; Annie Laurie; total score 104.92. Highly commended, N. Dymont, Clappison; Queen; total score 89.28. Commended, N. Dymont, Clappison;

Briery Banks Susie; total score 88.10.

Class 42, Section 2.—Ayrshire Heifer, under 36 months.—1st prize, W. M. Smith, Scotland; Ladysmith; total score 105.90. 2nd prize, H. & J. McKee, Norwich; White Rose; total score 92.48. 3rd prize, N. Dymont, Clappison; Ruby 2nd of Hickory Hill, total score 75.06. Highly commended, W. M. Smith, Scotland; Lady White; total score 73.26. Commended, W. M. Smith, Scotland; Esoteric; total score 61.08.

Class 43, Section 1.—Holstein Cow, over 36 months.—1st prize, Geo. Rice, Curries' Crossing; Winnie Win; total score 125.20. 2nd prize, G. W. Clemens, St. George; Queen De Kol; total score 93.02. 3rd prize, G. W. Clemens, St. George; Cornelia Artis; total score 73.90.

Class 43, Section 2.—Holstein Heifer, under 36 months.—1st prize, Geo. Rice, Curries' Crossing; Pauline; total score 104.30. 2nd prize, Jas. Rettie, Norwich; Mercena 3rd; total score 102.98. 3rd prize, Jas. Rettie, Norwich; Cornelia Sch; total score 97.36. Highly commended, Jas. Rettie, Norwich; Ianthe Jewel; total score 91.14. Commended, G. W. Clemens, St. George; Princess De Kol; total score 69.26.

Class 46, Section 1.—Grade Cow, under 36 months.—1st prize, A. Mc Dougall, Guelph; Utopia; total score 127.42.

Class 46, Section 2.—Grade Heifers, under 36 months.—1st prize, Jas. McCormack, Rockton; Nellie; total score 76.26. 2nd prize, W. M. Smith, Scotland; Jennie; total score 72.64. 3rd prize, A. Mc Dougall, Guelph; Mary; total score 65.38.

Class 47, Section 1.—Best Holstein Cow, over 36 months.—1st prize, Geo. Rice, Curries' Crossing; Winnie Win; total score 125.20. 2nd prize, G. W. Clemens, St. George; Queen De Kol; total score 93.02. 3rd prize, G. W. Clemens, St. George; Cornealia Artis; total score 73.90.

Class 47, Section 2.—Best Holstein Heifer.—1st prize, Geo. Rice, Curries' Crossing; Pauline; total score 104.30. 2nd prize, Jas. Rettie, Norwich; Mercena; total score 102.98. 3rd prize, Jas. Rettie, Norwich; Cornelia; total score 97.36. 4th prize, Jas. Rettie, Norwich; Ianthe Jewel; total score 91.14. Commended, G. W. Clemens, St. George; Princess; total score 69.26.

### Accounted For

Mother—"Johnny, your face is very clean, but how did you get such dirty hands?"

Johnny—"Washin' me face."—  
Detroit Free Press.

### Annual Meeting of the Poultry Association of Ontario.

The annual meeting of the Poultry Association of Ontario was held in the Council Chamber, Guelph, December 12th, 1901, at 1.30 p. m., the President, Mr. A. W. Tyson, in the chair.

The minutes of the last annual meeting were adopted, after which the Secretary read his report, which is as follows:

The past year has been a very successful one for the Ontario Poultry Association. The year began with a debit of \$100.00. It ended with \$182.86 to the credit of the Association. The amalgamation with the Provincial Winter Fair has worked out very successfully. A larger number of people have been reached by this means who could not have been induced to attend a poultry show with no other connection. To this arrangement is due, in a great measure, the financial condition of the Association at the present time. As nearly as we can figure, up to the last evening between six and seven thousand people have visited the Winter Fair, and there are very few of that number who have not visited and taken a special interest in the poultry department. This not only advertises the poultry, but also shows to the public what good is being done through the Poultry Association.

This year the Minister of Agriculture increased the grant to the Poultry Association to one thousand dollars to assist in carrying on the educational features in connection with the show.

The Department of Agriculture also supplied for the present show, five hundred additional wire coops, a number of tables required for holding the coops, also some tin drinking cups. In this connection I think we should thank Mr. John Saunders for his work in obtaining these very necessary appliances, also for the exceedingly good manner in which he has performed his work in the poultry department. I think it would also be proper if a motion were passed thanking the Minister of Agriculture for the very liberal manner in which he has supplied funds for the equipment of the poultry building.

The Committee appointed at the last annual meeting to take charge of poultry experiments, made arrangements with Mr. Graham, of the Ontario Agricultural College, to conduct the experiments this year. The results were given by Mr. Graham at the meeting on Thursday, December 12th. They will be published in the annual report.

At the annual meeting it is expected that the members will give expression to their views for the guidance of the newly-appointed Board of Directors. Any criticism made should have the object of improvement in view, and I believe it would be wise if there should also be coupled with it a suggestion as to how the matter referred to could be improved.

Mr. F. W. Hodson, Live Stock Commissioner, laid a plan before the Minister, which was acceded to by him, of dividing Ontario at Toronto, and increasing the grants to the Poultry Association. This plan was also submitted at the last annual meeting and accepted by the Association.

In conclusion, I wish to thank the officers and directors for the assistance rendered to me in carrying out the work of the Association during the year just past.

With regard to this matter, the following letter was received from the Deputy Minister of Agriculture. You will notice it is suggested in this letter that the Board of Directors be reduced to six. If Division No. 6 is dropped and Ontario County taken out of Division 7, it would give us still 8 directors, and I think would be satisfactory to the Department, and suggest that the division be made in this way:

December 11th, 1901.

Dear Sir:

For the election of Directors of the new Western Poultry Association, two plans are hereby submitted:

(1.) Take districts 6, 7, 8, 9, 10, 11 and 12 as they stand in the Agriculture and Acts Act and elect one director for each. This is the plan I suggested to the President.

(2.) Take the eastern part of Ontario, that is all the counties west of and including York and Simcoe and subdivide or arrange them as the Society sees fit for representation. Half a dozen directors in addition to the President and Vice-President should be sufficient.

In the first case you would take in Ontario County and York and all west of these, (Simcoe, Muskoka, etc., being with the East). In the second case your eastern line would be the eastern boundaries of York and Simcoe.

Either proposition will be satisfactory to the Department. Let the Society, or the present directors adopt either and act upon it, and we will frame the amendment to the Act accordingly.

The Act also permits the Society to elect as an extra director any official of the Agricultural College.

Yours very truly,

(signed) C. C. James,

Deputy Minister of Agriculture.

It was moved by Mr. Anderson, seconded by Mr. Mick, that the report be adopted as read with suggestions. Carried.

It was moved and seconded that the report of the Treasurer be adopted as read. Carried.

The Secretary read a suggestion regarding the Constitution and By-laws of the Association.

It was moved by Mr. McNeil, seconded by Mr. Teale, that the Constitution and By-laws be accepted as read.

Moved as an amendment, and seconded, that the clause regarding proxy votes be struck out and that

there be a 2nd Vice-President. Carried.

With this amendment the original motion was carried.

#### ELECTION OF OFFICERS.

Honorary President.—F. W. Hodson, Ottawa.

President.—A. W. Tyson, Guelph.  
1st Vice-President.—W. McNeil, London.

2nd Vice-President.—M. T. Burn, Tilsonburg.

Secretary-Treasurer.—A. P. Westervelt, Toronto.

Directors:—  
District No. 6.—Jas. Dundas, Deer Park.

District No. 7.—John Crowe, Guelph.

District No. 8.—J. S. Jeffrey, St. Catharines.

District No. 9.—Thos. Scott, St. Thomas.

District No. 10.—John Ramsay, Owen Sound.

District No. 11.—Allan Bogue, London.

District No. 12.—W. Kedwell, Petrolia.

District No. 13.—W. J. Bell, Angus.

O. A. C.—W. R. Graham, Guelph.  
Delegates to Industrial Exhibition, Toronto.—W. Barber, Toronto; W. Fox, Toronto.

Delegates to Western Fair, London.—J. H. Saunders, London; Wm. Beattie, Wilton Grove.

Delegates to Provincial Winter Fair.—Wm. McNeil, London; A. W. Tyson, Guelph.

Delegates to Southern Fair, Brantford.—T. A. Cox, Brantford; W. Colwell, Paris.

Delegates to Hamilton Fair, Hamilton.—R. McKay, Hamilton; G. G. Henderson, Hamilton.

It was moved by Allan Bogue, seconded by M. T. Burn, and carried, that a vote of thanks be extended to the Honorable the Minister of Agriculture for Ontario, for the very liberal manner in which he has always supported the Poultry Association in Ontario, as well as for the increase in the grant and for the additional fitting supplied for the poultry department of the Winter Fair.

The meeting then adjourned.

#### DIRECTORS' MEETING.

Immediately at the close of the annual meeting, the newly elected directors held a meeting.

It was moved and seconded that Mr. J. M. Duff, Guelph, be appointed auditor. Carried.

Mr. McNeil and Mr. Donovan were appointed a committee to have the constitution and by-laws printed.

Moved by Wm. McNeil, and seconded by Mr. Scott, that the prize list be revised, and that the list of specials be in the hands of the Secretary by the 15th of October. Carried.

It was resolved that a class for Cayuga ducks be added to the prize list. Also that a class be added for China geese and Japanese Silkies. It was also resolved that the class for Belgian canaries

be changed to read, "Scotch fancy canaries."

It was moved by W. McNeil, and seconded by M. T. Burn, that the entries close two weeks before the show is held, and that an official catalogue be printed; also that the names be left off the coops. Carried.

The meeting then adjourned.

### 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

### Eastern Townships Farmers' Institute Meetings.

A very successful series of meetings held in the Eastern townships of the Province of Quebec just closed, at which Mr. James Stonehouse of Port Perry, and T. G. Raynor of Rose Hall were the visiting delegates.

The Dominion Department of Agriculture arranged for a series of meetings extending over a period of four weeks in the counties of Chateaugay, Huntingdon, Missisquoi, Shefford, Brome, Stanstead, Sherbrooke and Compton, among the English speaking population of the Province.

The Eastern townships as every one knows, are largely engaged in the dairy industry. Cheese factories and creameries are as common as schools, houses and churches. There are some very fine creameries recently built and very completely equipped to do the best of work.

The Hon. Mr. Fisher, realizing the importance of the hog industry as a suitable adjunct to dairying, and feeling that not nearly enough hogs were produced here, nor yet of the right type, to bring the largest returns to the farmers, was anxious that pork production should be one of the prominent questions discussed, with special reference to the bacon hog. Because, as he said, of the \$12,000,000 worth of pork products exported to Great Britain last year, Ontario had received the lion's share in getting about \$10,000,000 worth of that amount.

In compliance with the views of the Minister, Mr. Raynor usually introduced this question at the afternoon sessions in which he outlined the present conditions of the trade and showed the value of a change from the fat hog to the bacon type, as there had been fully one cent difference in the price per pound during the summer in favor of the bacon hog. When select bacon hogs were fetching 7½ cents

per pound, the fat hog was worth only 6½ cents. His talk on breeding, growing and finishing the bacon hog was illustrated by the use of charts and photographs, such as were in use when this question was prominently before the Ontario producers on the Institute platform. Judging from the lively discussions which usually followed the introduction of this question, many of those present were thinking seriously of breaking away from their idol, the fat hog, to the development of a suitable type of the high-class trade in Wiltshire sides. The hog raisers here have been in the habit of feeding a good deal of Western corn. And by the way, it is surprising to the Ontario farmer how much of the coarse grain of Ontario is imported here and fed to stock generally. We believe this is a mistake for the average Quebec farmer, for if he grew more of his own coarse grain and kept less in hay and pasture he would have more money in his pocket for the year's business. This year he is certainly caught napping owing to the marked advance in the price of all coarse grains. Little, or growing pigs, on green pasture has been tried and it seemed a revelation to at least some of them that 20 to 30 pigs could be carried on an acre of green feed for three or four months with a small allowance of grain and skim milk.

Mr. Stonehouse never failed to interest his audience on his observations and lessons deduced from the Pan-American test during the summer. He claimed that the test showed that there was more difference in individual belonging to the same breed than there was between the breeds themselves. He compared the rations fed to the Holsteins, Jerseys, Guernseys, and Ayrshires and showed how they compared with a balanced ration. The test showed that the most economic rations fed were the nearest to a well balanced one. Ensilage was proven to be an exceptional good soiling crop for summer as well as winter feeding. That cows relished it even when very sour, in fact so sour that when large quantities were fed to the cows it produced an undesirable flavor in the milk product. It was his conviction that not more than 40 to 50 pounds of ensilage could be fed safely to dairy stock, and this, of course, depended on the size of the cow.

Another lesson he noted was that cows drank much more water after their meals than at any other time. This seemed to show the necessity of sufficiently wetting their food in their big mixing box, the rumen. He strongly advised, wherever practicable, to keep water before milch cows at all times. Cows prefer moderately warm water to drink rather than very cold water.

He also noted that extreme heat for cows was as bad as extreme cold in causing a decrease of milk and fat content. To do their best,

cows should, therefore, be kept comfortable.

At the evening meetings Mr. Stonehouse pointed out the value of the Babcock Test to dairy farmers in enabling him to cull his herd and get higher averages by selection and breeding. He also referred to its value in both creamery and cheese factories. It was a surprise to find that some creameries down here still pooled their milk and it was only used in a few cheese factories as a basis for paying the patrons. Quite frequently he read an interesting paper on "Beautifying Farm Homes."

Mr. Raynor's evening talks ran along the line of the "Benefits of Farmers' Institute Organizations" and "Cultivation of the Soil." Everywhere the farmers appreciated the efforts of the Department of Agriculture and frequently expressed themselves in that way. They seem to be anxious to organize on lines similar to what we have in Ontario, that they may participate in similar advantages.

Keen discussions usually followed the introduction of soil culture, and it was found that many were practising methods of applying farm-yard manure, corn growing, etc., as is done by our Ontario farmers.

The area of land under the plow is much less in proportion to Ontario conditions and the farmers are spending a good deal of money in purchasing special fertilizers, which they need not do if they rotated their crops more frequently, sowed more clover and used to better advantage their farm-yard manure.

The weed problem is also a serious one in the Eastern Townships, as they have so much broken lands and uncultivated pastures. The paint brush or fire brans, steeple weed and ferns, weeds which Ontario farmers know little about are the chief enemies of their pastures, and in some places the perennial sow thistle is getting a good foothold.

Dairying with hog raising, and sugar making may be considered the staple industries of the farming population.

There are many good stock breeders, however, who are well known at home and abroad, such as Messrs. Smith, Cochrane, Ness, Greenshields and many others.

The Eastern townships are peculiar in the luxuriance and abundance of grasses and pure spring water abounding everywhere.

### Feeding Cattle.

Mr. McDonald: I find that on our light lands here the "White Flint" grows well, and gives us a large crop of grain. We feed steers for the export trade, and find that ensilage should have a large amount of well-ripened corn in it to give best results. Then, in addition, there should be fed a liberal amount of bran, pea meal and other grain, say eight to ten pounds a day. Our feeders are too sparing of the grain, and put their cattle on the market unfinished.

## A Christmas Gift for the King



By courtesy of *The Westminster*, Toronto.

And the King shall answer and say unto them,  
Verily I say unto you, Inasmuch as ye did it unto  
one of these my brethren, even these least, ye did  
it unto me.

## The Farm Home

### Christmas Bells

I heard the bells on Christmas Day  
Their old peculiar carols play,  
And wild and sweet  
The words repeat  
Of peace on earth, good will to men.

And thought how, as the day had come,  
The bellies of all Christendom  
Had rolled along  
The unbroken song  
Of peace on earth, good will to men.

Till ringing, singing on its way,  
The world revolved from night to day,  
A voice a chime,  
A chant sublime  
Of peace on earth, good will to men.

Then from each black, accursed mouth  
The cannon thundered in the south,  
And with the sound  
The carols drowned.  
Of peace on earth, good will to men.

It was as if an earthquake rent  
The hearthstones of a continent,  
And made forlorn  
The households born  
Of peace on earth, good will to men.

And in despair I bowed my head,  
"There is no peace on earth," I said:  
"For hate is strong,  
And mocks the song  
Of peace on earth, good will to men."

Then pealed the bells more loud and deep:  
"God is not dead! nor doth He sleep!  
The Wrong shall fail,  
The Right prevail,  
With peace on earth, good will to men."  
Longfellow.

### Ruggle's Christmas Tree

Randolph P. Ruggle was a remarkable man—a very remarkable man. Everything considered, I believe he was the most remarkable man I ever knew. He was a New Englander, born in Connecticut, and was of the best Puritan stock. He was always proud of the fact that most of his male ancestors had been clergymen, or at least teachers. At the time of which I am speaking he was middle-aged, or somewhat past, tall, thin, long-whiskered and with a wonderfully magnetic eye. He was, in fact, something of a mystic in feeling, but strictly practical in his actions and fully conversant with the ways of the world. He was resourceful, full of energy and never lacking the courage of his convictions; all of which made him a natural leader of men.

It was early in the year '48, or it may have been '49 or '50—the exact date doesn't matter—that Ruggle formed a colony to go to California. I was among the first to join. There was some sixty or seventy families, making, counting the children, over two hundred souls. We arrived early in the spring, in time to plant our crops, which Ruggle did not fail to see included plenty of beans, pumpkins and other New England luxuries. He had a strong love for everything pertaining to the region of his birth, and his dream was to build up a community which should be a slice cut out of the Connecticut River Valley. Tobacco culture, however, he barred, as well as the manufacture of New England rum. But he brought along a quantity of turkey eggs, mindful of the Thanksgiving season, and these he set under blue jays, one egg to each jay. Strange as it may seem, he had very good luck with this rather odd form of incubation, since he seemed to have the same mysterious influence over the brute creatures that he had over men.

The efforts of Randolph P. Ruggle to establish a little New England were pretty successful, notwithstanding that we were in a perfect wilderness and with no communication with the outside world. Our colony included a Congregational minister named Snow, and one of the first buildings erected was a church-meeting house Ruggle preferred to call it. This we used also for a school room on week days, the oldest Ruggle girl assuming the position of school ma'am. Ruggle established town meetings, and we met and elected road overseers, though there were no roads, and a justice of the peace, though there wasn't any crime, and selectmen, though they had precious little to do. In fact, about the only thing we missed was the New England weather, or, rather, weather served in the New England style, samples of all the different kinds in one day; and sometimes we thought Ruggle was thinking about introducing that, as he spent a good deal of time gazing at the sky. But if this was his idea nothing came of it, and we had to get along with the regular native climate.

Thanksgiving Day was a great event with us, and we couldn't have seen it through in better shape if we'd been living at East Upper Puddleford Centre, Connecticut. Early morning services in the church and later pie of all kinds, hot and cold, with and without upper crusts, and those blue-jay turkeys. It ran on till shortly before Christmas, when we noticed that Ruggle was getting very much worried over something. We thought it was about his wife's Christmas present. He set great store by his wife, and they were a most devoted couple—used to wan-

der about hand in hand, presenting an impressive sight, he measuring about six foot four and she being somewhere in the neighborhood of the four-foot-six class. You see, he had always made it a practice to give her a Christmas present which nobody else ever got, and it rather stumped him to come at such a gift out there in the wilderness. He was about this just as he was about everything else—bound to be original. Once he'd given her a new sidewalk in front of the house, and another time he cut down a tree and gave her a view she wanted, and on still another occasion he had cleaned out the kitchen chimney and called the improved draft her Christmas present. But this time he couldn't seem to hit on anything, though we soon saw that this wasn't all that was worrying him. At last we found out that he had got his heart set on having a Christmas tree—about the most absurd notion that he could have got into his head. But that's the way he was—the greater the difficulties the more determined it made him.

You might think, of course, that, situated as we were, a Christmas tree would have been right in our line and easier than hanging up our stockings, but you would be wrong. Every tree within reach was in the neighborhood of four hundred feet high and from seventy-five to one hundred in circumference. Any man in the world except Randolph P. Ruggle would have seen the hopelessness of the thing. But he just kept the outer corner of one eye cocked up at those ridiculous sequoias and went on thinking. Most self-sufficient man I ever knew, Randolph P. Ruggle was.

One day, a week before Christmas, Ruggle happened to meet me near his house, and says he:

"Well, we're going to have a Christmas tree—that's one thing settled and off my mind."

"But, Mr. Ruggle," I answered, "I can't see how it's possible. The trees around here average three hundred and fifty feet high and"—

"Never mind their average," he broke in. "We aren't going to use the whole grove. I've found one over a quarter of a mile from here which is no size at all—a mere bush."

"How high is it?"

"Oh, not over two hundred and sixty-five feet—just a dwarf. Perhaps fifteen feet in diameter at the base."

"But the church isn't over eighteen feet to the ridgepole. I don't see how we can get in even such a little sprig as that," I returned—pretty sarcastic, I'm afraid.

"I've been guessing myself that it would stretch the edifice somewhat," he answered, just as cool as when he first spoke. "Do you happen to know of any law against a Christmas tree sticking up a little mite through the roof?"

"No," I replied.  
"That's what ours is going to do."

"But it seems to me that the job of moving this shrub that you're talking about is going to be something of a staggerer."

"I didn't say that we were going to move it. Did you ever hear of Mohammed and the mountain?"

"Yes."

"Precisely. Mohammed was all right in many ways, if he was a foreigner. We shall move that church over to the tree, take off the rear end, cut a 15-foot scollop in the floor and roof, back it up around the tree and then clap on the end; and there you are. I don't see what more any reasonable person could want. We're in a new country and we've got to make the best of things. It won't stick up but 247 feet, anyhow."

Well, of course, when Randolph P. Ruggle made up his mind to a thing that settled it, and in three days everything was arranged as he had planned. "There!" said Randolph P. Ruggle, "there you are. The children won't have to go without their Christmas tree. Only a little over 150 feet to the first branches and plenty of room for the presents. A man can put on a house and lot or an ocean steamer if he wants to. No crowding of the wax candles and setting things afire. Beats one of those little house trees all hollow. Everything shut off from the view of the audience and the element of surprise introduced."

But Ruggle couldn't get over his inability to think of something to give his wife. When people began to fetch things to put on the tree the last afternoon it brought this to his mind more than ever. "She'll be expecting something, and she'll be the only person who won't get anything," he said. "But I'll let her go without before I'll give her some commonplace gimcrack."

Of course the trimming of the tree and the putting on of the presents fell to Randolph P. Ruggle.

We thought he was going to find it difficult to get up, but he didn't. The bark was pretty rough and he went up like a cat, driving in spikes occasionally where the trunk was too smooth to afford a foothold. Before he started he tied the end of a ball of twine to the tail of his long blue coat, with the brass buttons, which he always wore; and when he reached the top he drew up a rope with the string and hoisted the other things with the rope. Trimmings it all up with festoons of popcorn and red apples, and tinsel, and candles, and it blazed and sparkled like a skyrocket just as it exploded. When it came time for the exercises Randolph P. Ruggle went up in the tree again and let the presents down with his rope, a dozen at a time, and we passed them through the window of the church, where Rev. Mr. Snow distributed them to the congregation with chirpy and good-natured little humorous remarks. When the last present was off Randolph P. Ruggle started to let himself down by tying one end of the rope around his body under his arms and then throwing the rope over a branch, taking it in both hands and paying it out as he descended. But he had miscalculated its length and he reached the other end while still 30 feet from the ground. Here he remained suspended, and the prospect looked pretty dark for Randolph P. Ruggle, as he wasn't able to pull himself back up. But finally we reached up with a long pole which had a hook on the end of it, and, getting the hook through the back of his blue coat, began lowering him. Somebody called out, "Pass him through the window for his wife's Christmas present," and this we did, Mr. Snow making appropriate remarks as we laid Randolph P. Ruggle down in front of the lady.

A very remarkable man was Randolph P. Ruggle—very remarkable—and I shall never see a Christmas tree or a bluejay either, for that matter, without thinking of him.—Frederick Veeder, in Harper's Magazine.

## How to Cook

Our special correspondent sends us the following report of Mrs. Jean Joy's Cooking Lesson at the Ladies' Session of the Experimental Union:

In introducing Mrs. Jean Joy to the large audience of ladies, Miss Rose said she was presenting to them one who was the pioneer in the Domestic Science movement in Canada. Mrs. Joy, by her pleasant unassuming manner, made the ladies feel free to ask frequent questions and many useful little points were in this way brought out, which added much to the interest and profit of the gathering.

Mrs. Joy defined cooking as the external digestion of food—making it in a form pleasing to the eye and palate, and above all, making it in a condition so as best to supply

the varied wants of the body. She spoke of the nitrogenous elements in the foods which built up the muscles, also the carbonaceous elements which furnish heat, energy and fat, and explained that to maintain a healthy body these should be properly combined in the needed proportions.

In teaching cooking the chief aim should be to have exactness. It is the one and only sure road to success. Like proportions give like results, and do away with all guess work and uncertainty and make cooking a pleasure rather than a worry.

The first dish Mrs. Joy made was a plate of potato soup for one person, using one-half of a large potato, one teaspoon chopped onion, one sprig parsley, three-

quarters cup milk, one-half teaspoon flour, one-half teaspoon butter, one-quarter teaspoon salt, one-eighth teaspoon pepper. Pare and boil the potato, strain and mash. Heat milk, in which is parsley and onion mixed and melt together the flour and butter, strain in the hot milk, add mashed potato, pepper and salt, allow it to boil and then serve.

A very pretty dish for breakfast or supper was Beuregard or Golden Rod eggs, which Mrs. Joy prepared: one slice toast, one-half cup white sauce, one egg, a little chopped parsley.

Mrs. Joy said that white sauce was used in so many ways that it was nice to know the exact proportions and gave them as follows: One tablespoon flour (always level measure), one tablespoon butter, mix and melt together, add one cup hot milk, one-quarter teaspoon salt and one-eighth teaspoon pepper. For tomato sauce substitute a cup of strained tomatoes in place of the milk. For pudding sauce use sugar and flavoring instead of pepper and salt, and one may substitute fruit juice and not use milk. But to return to the Golden Rod eggs, make the toast and one-half cup of white sauce, cook the egg for twenty minutes, in water at 180 degrees, or if you have not a proper thermometer, put the egg in boiling water, remove dish from the stove and cover with the tea cosy, or a flannel and let stand 20 minutes, then separate white from yolk, rub white through a sieve and then the yolk into separate dishes. Cut the toast into squares, cover with white sauce, sprinkle first with the white of egg, then with the yellow and finish with the parsley. Serve hot.

An easily prepared dessert was made as follows: Pare and cook in quarters two or three good apples, make some toast, cut in squares, and soak in cream, put on each square some of the apple, sprinkle with sugar and chopped almonds, cover all with the beaten white of an egg, to which has been added a little sugar, place in the oven to slightly brown. This dainty, toothsome dish was called apple balls.

A hearty vote of thanks was tendered Mrs. Joy by the ladies for all felt they had spent a most delightful afternoon.

702

### A Dainty Gift

for a lady is one of these Battenburg lace collars, made by your own hands. Pattern stamped on fine cambric, by mail for 2 cents; with braid and edging to complete 20 cents. When ordering give number or enclose this advt.

New sheet of patterns for Hooked Rugs and Mats will be sent upon request.

**JOHN E. GARRET,**  
P. O. Box 231 C      New Glasgow, N.S.

**The Santa Claus Letters.**

They're writing the Santa Claus letters—  
The rosy-cheeked girls and the boys;

They're penning bright pages—  
The tots of all ages—  
For tons of his trinkets and toys!

They're writing the Santa Claus letters  
Ere the reindeer shall gallop above;

And isn't it funny,  
They don't inclose money—  
They just give him millions of love!  
—Atlanta Constitution.

**Trifles for the Tree.**

Christmas will soon be here again, and with it the tree which bears such a variety of fruit. All other trees bud and blossom and bear their own fruit; but the Christmas tree has to have it made and put on, and often one is glad to have some ideas presented for novelties. Perhaps the few given for our young friends in this column may be new to some of you, and "help out."

Necklaces and bracelets which may be distributed among your young guests at the "tree party," can be made of plump glossy raisins and nut kernels. Take a raisin and nut kernel alternately, and string them on a good stout thread. Peanuts, filberts, hazelnuts and almonds may be used in this way. Another pretty combination for long ropes to hang from branch to branch, is popcorn and bright red cranberries.

A very pretty ornament can be made in this way: Cut tissue paper into pieces six inches long and three wide. Fringe the ends and wrap in each piece a whole peanut. The tissue should be red, white, pale-blue, pink and Nile green. Twist the papers at each end, just as you do when wrapping up "mottos," and tie them to lengths of gold or silver cord such as is used to tie up confectionery boxes. Or if this is not available, use different colored sewing silks. Use four or five of these dressed-up peanuts for each length. You will be surprised to see how attractive these will look among the branches of your Christmas tree.

**Regarding Toast.**

One of the most wholesome and nutritious breakfast dishes is toast—not the so-called buttered toast, but plain toast moistened with warm milk. The process of toasting, if properly done, converts a portion of the bread into predigested food. Heat converts dry starch into dextrine, a form that all starchy substances take after the first process of digestion. This relieves the stomach of a part of its work. If the preparation of toast in the morning be regarded as too troublesome to be practical, it may be made by taking advan-

age of the strong fire in the range for the midday cooking or baking. Of course, in an hour or two such toast has absorbed moisture and apparently becomes stale and toughened. If, however, it is put in the oven for ten minutes in the morning, its crispness is restored as perfectly as if newly made. Toast should be thoroughly and evenly browned on both sides.

**Hints by May Manton.**

MISSER'S NORFOLK SHIRT WAIST WITH APPLIED BOX PLAITS. NO. 3963.

TO BE MADE WITH OR WITHOUT THE FITTED LINING.



3963 Misses Norfolk Waist, 12 to 16 yrs.

Norfolk styles are in the height of fashion both for young girls and their elders. The exceedingly smart waist shown exemplifies one of the latest designs and is desirable for many materials. The original is made of velveteen in a black and white Shepherd's plaid; but flannel corduroy, and all the season's waist cloths are equally appropriate. As shown the waist is made over the fitted foundation, but can be left unlined when preferred.

The lining is simply fitted and terminates at the waist line. The fronts and back of the waist are smooth at the upper portion, but drawn down in gathers at the waist line. The box plaits are applied, stitched at each edge, and are graduated in width to give a tapering effect to the figure. The yoke is cut in points, that are stitched flat over the plaits, and the neck is finished with a novel collar that matches it and the cuffs. The sleeves are in bishop style.

To cut this waist for a Miss of 14 years of age 3 1/2 yards of material 20 inches wide, 3 yards 27 inches, 2 1/2 yards 32 inches wide, or 2 yards 44 inches wide will be required.

The pattern 3963 is cut in sizes for Misses of 12, 14 and 16 years of age.

"Do you know that you talk in your sleep, Henry?" asked Mrs. Peck. "Well, do you begrudge me those few words, also?" he snapped back.

**Teddy's Views on Dress Reform.**

I have so many things to keep, my pockets almost burst,  
If I were tailor to the boys, I'd make the pockets first.  
I'd sew the seams with wire thread and with a little screw  
I'd fasten on each button, with a nut to screw it to.  
—Exchange.

**Hints to Housekeepers**

A candle may be made to fit into any candle-stick if it be dipped in very hot water. This will so soften the wax that it may be easily pushed into a candle-stick which would otherwise be too small for it, and it will be neatly and firmly fixed there.

An easy way to clean knives is to use a small piece of old Brussels carpet, sprinkled well with either bath brick or emery powder, and slightly moistened with methylated spirit. Double over, and rub the knives backward and forwards, using the left hand to steady the carpet.

A raw potato is an excellent cleanser. It will remove stains from the hands, and also from woollen materials.

**All You Need To Know**  
if interested in Practical Education, is the name of our Splendid School, the  
**Central Business College**  
TORONTO  
We thoroughly prepare young people for the business duties of life by our complete courses in Accounting, Telegraphy, Shorthand, Typewriting, Etc. We provide a class of Capable Teachers, and Eighty Typewriting Machines, and produce good results.  
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**THE ALUMINUM-MAHOGANY STEREOSCOPE**  
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. H. 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.

# The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

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

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TORONTO.

## Canadian Hereford Breeders.

### 11TH ANNUAL MEETING.

The 11th annual meeting of the Canadian Hereford Breeders' Association was held in the City of Guelph on Wednesday, December 11th, at the Royal Hotel, and was the best attended in the history of this Association. The president, Mr. W. H. Hunter of "The Maples" occupied the chair and among others present were Messrs. Mossom Boyd, Bobcaygeon; J. A. Chapman, Beresford, Man.; Asa Warnick, Painswick; Alf. Stone, Guelph; H. Reid, Mimosa; W. K. Gooding, Arkell; H. G. Wade, Toronto; P. J. McDiarmid, Dumfries; W. H. Hammell, Beeton; J. A. McDiarmid, Stayner; and H. Wade, Toronto.

In opening the meeting the president said that the steps taken to improve the Hereford breed were meeting with success. A brighter day was dawning for that breed and the outlook was most hopeful. The secretary, Mr. Henry Wade of Toronto, in his annual report said that the year had been a good one for Hereford owners. They had taken high standing at Winnipeg, Toronto, Sherbrooke and Nova Scotia fairs. Sales had been excellent in Canada and the United States, a number of Canadian animals having been sold at good prices for shipment to Texas. There were now 1,050 pedigrees ready to print in volume two, one-third as many as those in volume one. During the year 263 registrations and 127 transfers were paid for, 37 less than the previous year. If exhibitors at the Industrial Exhibition were compelled, as requested by the directorate, to register with the association the members would be materially increased. The membership of the association showed a gain of five. The financial state-

ment showed a cash balance of \$407.

The following is a synopsis of the resolutions adopted:

(1) That the editor, Mr. H. Wade, be authorized to publish the second volume of the Canadian Hereford Herd Book.

(2) That the Hereford Breeders' Association join the Cattle Breeders' Association on the same terms as has already been done by other associations.

(3) That the Hereford Association will be pleased to have the managers of the St. Louis world's fair appoint Mr. W. E. Skinner of Chicago a member of the International Live Stock Association as commissioner for the management of the live stock department of that fair, and that the president and secretary sign a memorial to that effect.

(4) That the Hereford Breeders' Association resolve that the Dominion Government be petitioned to change the present veterinary act as regards the restrictions on shipping between Britain and Ontario, and also to the United States, and that a deputation be appointed by this Association to act with the Shorthorn Breeders' Association in this matter. The president and secretary were appointed to act under this resolution.

(5) That Mr. C. F. Complin of London, Ont., be appointed auditor.

The following officers were elected: President, W. H. Hunter; vice-president, A. Stone; vice-presidents for the provinces: Ontario, J. A. McDiarmid; Quebec, H. D. Smith, Compton, Que.; Manitoba, J. A. Chapman; Maritime Provinces, W. W. Black, Amherst, N. S. Directors, A. Rawlings, Forest; A. S. Hunter, Dundas; F. Copland, Harrison; A. H. O'Neill, South Gale; Mossom Boyd, W. J. Hammall, H. Reed, Asa Warnick. Representatives to the Provincial Winter Fair, Alf. Stone, W. R. Goodwin; delegates to Toronto Industrial Exhibition, W. H. Hunter and W. J. Hammall; to the London Exhibition, H. Wade; to the Ottawa Exhibition, Mossom Boyd; Winnipeg Exhibition, J. A. Chapman.

## Winners in the Block Test at Guelph.

We give below a list of the awards in the carcass classes at Guelph. The keenest interest was shown in this part of the show. The official statement as to the quality of the carcasses has not been made public yet. In the beef classes quite a few criticisms were passed regarding the difference in the awards for the live animal in the ring and for the carcasses when hung. It so happened that the animal that stood first when alive did not take first place when cut up. The butchers who passed on the carcasses seemed to prefer the lean one and made the awards accordingly.

In the bacon hog classes a very even lot of carcasses were hung up, nearly all of which would perhaps grade as No. 1 Wiltshire. Some of the pure bred were a little overdone and this knocked them out of the championship, which went to a grade Yorkshire and Berkshire cross. The three carcasses making up this lot were very good though one seemed to be a little on the thin side.

The show of mutton carcasses was very good indeed and would measure up in quality with any similar display no matter where shown.

The winners in this department are:

### CATTLE

Pure Bred—1, W. J. Rudd, Eden Mills; 2, James Gibb, Brookside; 3, D. McCrae, Guelph; 4, J. and R. McQueen, Elora.

Grade or Cross—1, John Brown, Galt; 2, James Bowman, Guelph; 3, T. Lloyd Jones, Burford; 4, J. Fried & Son, Roseville.

Sweepstakes—James Bowman, Guelph.

### SHEEP.

Cotswolds.—Wether, 1 year and under 2—1, 2 and 3, John Park & Sons, Burgessville. Wether under 1 year—1, John Rawlings, Ravenswood; 2 and 3, John Park & Sons.

Lincolns.—Wether, 1 year and under 2—1, J. T. Gibson, Denfield, Wether under 1 year—1, J. T. Gibson; 2, G. Walker, Ilderton.

Leicesters.—1 year and under 2—1, Orr & Lillico, Galt; 2 and 3, John Kelly, Shakespear. Under 1 year—1 and 2, H. Parks, Woodstock; 3, Orr & Lillico.

Oxfords.—1 year and under 2—1, Smith Evans, Gourcock; 2, J. H.

## Poultry and Eggs.

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

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

**FORTY MAMMOTH** bronze turkeys for sale, of good quality and size, have a fine tom at head of flock bred from Imp. Lev; and also some fine hens, have one that won 1st prize three years in succession, and at West Durham and Darlington Fall Fair 1 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 905, Bowmanville.

**ALL** Prize-Winning Strains—Bronze Turkeys, bred by Imported Tom, that won second at Pan American—Narragansett Turkey and Pekin Ducks. A. ELLIOTT, Pond Mills, Ont. London Exp.

**BUFF** Rocks, White, Golden, Wyandotts, Brahmas, Andalusians, Brown Leghorns, Rou-n Ducks Toulouse Geese, White Turkeys; A 1 stock; \$1 to \$3 JAMES MATHERAL, Drumbo, 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. I. Bell, Angus, Ont.

**MAMMOTH BRONZE** Turkeys and Toulouse 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, Drumquoin, Ont. P.S.—All turkeys bred from a grand imported tom.



Jull, Mt. Vernon. Under 1 year—1, J. H. Jull; 2 S. Evans. Best yearling wether carcass, S. Evans. Best lamb carcass—J. H. Jull.

Shropshires.—1 year and under 2—1, W. H. Beattie, Winton Grove; 2, W. E. Wright, Glanworth; 3, T. Lloyd Jones & Sons, Burlord. Under 1 year—1 and 2, W. E. Wright; 3, R. Gibson, Delaware.

Southdowns.—1 year and under 2—1, W. E. Wright; 2, T. C. Douglas, Galt; 3, John Jackson & Son, Abingdon. Under 1 year—1, T. Lloyd Jones & Sons; 2, Wm. Martin, Binbrook; 3, John Jackson & Son.

Dorset Horn or Merino.—1 year and under 2—1 and 2, R. H. Harding, Thorndale; 3, John Hunter, Wyoming. Under 1 year—1, R. H. Harding; 2 and 3, John Hunter.

Hampshire or Suffolk.—All prizes in both sections were won by James Bowman, Guelph.

Grade or Cross.—1 year and under 2—1, John Park & Sons; 2, T. C. Douglas; 3, R. Gibson. Under 1 year—1, John Brown, Galt; 2, R. Gibson; 3, W. E. Wright.

**BACON HOGS.]**

Pure Breds—1 and 9, J. E. Brethour, Burlord; 2, J. Featherston & Son, Streetsville; 3, D. DeCoursey, Bornholm; 4, J. R. Newell & Son, Crampton; 5 and 6, G. B. Hood, Guelph; 7, Durham & Cayen, East Toronto; 8, E. Brien & Son, Ridgetown.

Grade or Cross—1, Alf. Hales, Guelph; 2, T. A. McClure, Meadowdale; 3, E. Park & Son, Burgessville; 4, Jas. Rettie, Norwich; 5, C. R. Geis, Heedelburg; 6, A.

Elliott & Son, Galt; 8, Bennett & Pardo, Charing Cross. Sweepstakes—Alfred Hales.

Diplomacy.—First Boy—It's six o'clock. Let's go home. Second Boy—Nit! If we go home now we'll git licked fer stayin' so late. If we stay till eight we'll git hugged and kissed fer not bein' drowned.—"Puck."

"There, my dear," said the returned hunter, "there's one bird for you, anyway. Bagged him just as I was about to give up in disgust."

"Oh, George," she exclaimed, "it's a carrier pigeon, isn't it?"

"Not much. It's a quail."

"But it has a card tied to its leg with some message on it. Let's see. It says: 'John Jones, Poultry and Game, Central Market.'"

—Philadelphia Press.

**Canadian Winners at Chicago.**

**HORSES.**

Graham Bros., Claremont, Ont., first for Clydesdale stallion 3 years and under 4, first for stallion 2 years and under 3, first for 3-year-old mare, and champion for best Clydesdale mare any age. They also had third for yearling stallion, fourth for mare over 4 years, and third and fourth in the specials for yearling mare.

**CATTLE.**

In Shorthorns J. and W. B. Watt, Salem, had 8th for yearling bull and 5th for junior bull calves, and W. C. Edwards & Co., Rockland, Ont., 6th. Messrs. Watt also had 6th for senior heifer calves. In

Herefords H. D. Smith, Compton, Que., had 3rd for aged bulls. No Canadians showed in the Aberdeen Angus classes. In Galloways D. McCrae, Guelph, had 4th for cow and also for herd. In Devons W. J. Rudd, Eden Mills, Ont., had 2nd for 2-year-old bull, 3rd for aged cow, 2nd for 2-year-old cow, for yearling and for calf. He also had 3rd for fat steer and first for fat yearling and calf in the Devon section.

**CONSTIPATION  
INDIGESTION  
TORPID LIVER**

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

**Catarrh and  
Consumption**

I have spent nearly 50 years in the treatment of the above named troubles and believe I have effected more permanent cures than any specialist in the history of medicine. As I must soon retire from active life, I will, from this time on, send the means of treatment and cure as used in my practice, free and post-paid to every reader of this paper who suffers from these loathsome, dangerous and disgusting diseases. My treatment will positively give prompt relief and cure in the worst cases. This is a sincere offer which anyone is free to accept. Address: PROFESSOR J. A. Lawrence, 114 West 33d St., New York.

**A Word to Farmers...**

THE opportune time to secure subscriptions to THE FARMING WORLD is right now. We have to thank many of our friends for the interest they have manifested in making up clubs and securing for themselves one or other of the valuable premiums we offer. Our list of books useful to farmers specially commend themselves to readers. Those who have not started, start now, and let those who know what it is to earn a valuable premium get going on a second or third club and earn others. Subscribers who are renewing direct can secure any of the books named at very special prices.

**Soiling Crops and Silo**

An invaluable book by Thos. Shaw, Professor of Animal Husbandry at the University of Minnesota, and known to every Canadian farmer. This book is recognized as by far the most original and comprehensive on the subject of which it treats. Publishers' price is \$1.50.

Will be sent free to any present subscriber sending three new yearly subscriptions at \$1.00 each, or to any present subscriber, not in arrears, for \$1.50.

**Forage Crops**

Invaluable book by Thos. Shaw. It has a practical ring about it from beginning to end that betrays confidence in the reader as to the value of its contents. It is illustrated, substantially bound in cloth, and consists of about 300 pages. Publishers' price is \$1.00.

Will be sent free to any present subscriber sending two new yearly subscriptions at \$1.00 each, or to any present subscriber, not in arrears, for \$1.00.

**The Farmer His Own Lawyer**

A new premium of the closing month of the old year is a valuable book entitled "Be your own Lawyer." This gives in condensed form the business laws of Canada—forming a practical and ready reference for Magistrates, Land Owners, Tenants, Builders, Contractors, Farmers, etc. The legal forms are all filled out in detail, signed and even sealed, thus serving as a model which any person can follow.

A copy of "Be Your Own Lawyer" will be furnished free to any reader of THE FARMING WORLD who will send 2 new yearly subscriptions.

Address all letters and make cheques, money orders and drafts payable

**THE FARMING WORLD,**  
Confederation Life Building, TORONTO.

ALWAYS MENTION THE FARMING WORLD WHEN WRITING ADVERTISERS.

Canada made a great record in the breeding sheep classes and one would imagine himself at a Canadian show, there were so many Canadian sheep around. In Shropshires D. G. and J. G. Hammer, Mt. Vernon, Ont., had first for aged ram, and second for ewe lambs and for four lambs by one sire. John Campbell, Woodville, Ont., had 4th for aged ram, 3rd for yearling ram, 4th for ram lamb, 3rd for aged ewe, 4th for ewe lamb, 3rd for flock, and 1st for four lambs by one sire. Campbell also secured 2nd for fat wether, 3rd for fat

lamb. R. Gibson had 1st for fat wether, 1st for fat lamb, and 1st for pen of five lambs. He also had champion wether in the fat class. In Southdowns Teller Bros., Paris, had 1st in lambs and 1st in yearlings in the fat class. In Hampshires J. Kelly, Shakespeare, had 3rd for aged ram, 3rd for yearling ram, 2nd for aged ewe, 3rd for lambs and 3rd for flock. Hon. H. M. Cochrane, Que., had 2nd for ram lamb, 2nd and 3rd for yearling ewe, 2nd for ewe lamb, 2nd for flock and 2nd for four lambs by one sire. J. A. McGillivray, Uxbridge, won everything in Dorset Horns. In Cotswolds Park & Son, Burgessville, Ont., had 3rd for aged ram, 2nd for ewe, 3rd for yearling ewe, 2nd for ewe lamb, and 2nd for flock. They also had two firsts in the fat classes.

In Lincoln the prizes were all won by J. T. Gibson, Denfield, Ont., and J. H. Patrick, Ilderton, Ont., with the former having a little the best of it. In Leicesters J. M. Gardhouse, Highfield, Ont., had 1st for aged ram, 2nd for yearlings, 1st, 2nd and 3rd for aged ewes, 2nd for yearling ewe, and 1st for lambs. John Kelly had 2nd and 3rd for aged ram, 1st for yearling ram, and also for ewe, and 2nd for ewe lambs. Orr & Lillico, Galt, Ont., had 1st in ram lambs and won all the best awards in the fat class of this breed.

#### Of Value to Horsemen.

Do you turn your horses out for winter? If so, we want to call your attention to a very important matter. Horses which have been used steady at work, either on the farm or road, have quite likely had some strains whereby lameness or enlargements have been caused. Or perhaps new life is needed to be infused into their legs. Gombault's Caustic Balsam applied as per directions, just as you are turning the horse out, will be of great benefit; and this is the time when it can be used very successfully. One great advantage in using this remedy is that after it is applied it needs no care or attention, but does its work well and at a time when the horse is having a rest. Of course it can be used with equal success while horses are in the stable, but many people in turning their horses out would use Caustic Balsam if they were reminded of it, and this article is given as a reminder.

#### Peterborough Poultry Show.

The Peterborough Poultry and Pet Stock Association will hold its next annual show on January 21st and 22nd next. All entries must reach the secretary, Mr. Wm. Collins, Box 926, Peterborough, Ont., by January 14th. A generous list of prizes is provided and a good show is expected. Prize lists and other information may be had by applying to the secretary.

#### Will Immune Cattle.

An important statement was published last week to the effect that Prof. Behring, a noted German scientist, announced in a recent lecture that his experiments demonstrated the possibility of immunizing cattle from tuberculosis by inoculation. Should the professor's predictions turn out to be true, cattle men will have an effective remedy in their own hands for effectually stamping out the disease.

#### A Successful Creamery.

A few weeks ago we published a short statement of the year's work at the St. Marys Creamery Co. Another successful creamery is that operated by the Renfrew Creamery Co., Renfrew, Ont. This company had the distinguished honor of supplying the royal train with butter during the trip of their Royal Highnesses the Prince and Princess of Wales through Canada some weeks back. The company have since engaged to supply the dining cars on the C. P. R. east of Fort William with butter. The moving spirit in the operations of this company is Mr. A. W. Wright, M. P., Renfrew, Ont.

So live to-day, that when to-morrow comes,

Thou shalt not cloud the sun with vain regret;

But let thy hand and heart commit those deeds

That love for man and faith in God beget.

—Osgood Elliott.

Show us, dear June, that not in vain Our lives need be!

Show us that we

Must also wait, through frost and rain,

To bloom like thee.

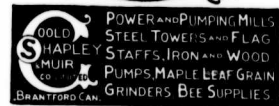
—Lucy Larcom.

It is generally easiest to kiss a woman right after you have begged her to forgive you for something.

"It's the only toime on earth," said Mr. Dolon, who was struggling with a balky horse, "that I wish for an ottomobile."

"Would yez sell the horse?"

"No, sir. I'd never give in like that. I'd hitch the animal up in front to the machine, an' then I'd see whether he'd go or not."—Washington Star.



#### Poor Soils

are made richer and more productive and rich soils retain their crop-producing powers, by the use of fertilizers with a liberal percentage of



#### Potash.

Write for our books—sent free—which give all details.

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

#### TOLTON'S No. 1 Double Root Cutter

##### POINTS OF MERIT

1. To change from pulping to slicing is but the work of moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke.

##### THE ONLY DOUBLE ROOT CUTTER MANUFACTURED

Fitted with ROLLER BEARINGS, STEEL SHAPING, and all that is latest and best in principle, material and construction.

TOLTON BROS., GUELPH, Ont.



## PURE-BRED STOCK NOTES AND NEWS FROM THE BREEDERS

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

### Cattle

Official records of American Holstein-Friesian cows from Nov. 28 to Dec. 14, 1901, are as follows:

During this period of fifteen days forty-two reports have been received. Sixteen full-age cows averaged: Age 6 year, 6 months, 8 days; 24 days after calving; milk 421.2 lbs.; butter fat 15.404 lbs.; equivalent to 19 lbs. 4.1 oz. butter 80 per cent. fat, or 17 lbs. 15.5 oz. 85.7 per cent. fat. One of these cows commencing record 16 days after calving produced 540.8 lbs. milk containing 21.051 lbs. fat equivalent to 26 lbs. 5 oz. butter 80 per cent. fat, or 24 lbs. 9 oz. 85.7 per cent. fat. This record was confirmed by a retest six days after its close. The retest showed an increase of average product. Another in this class commencing record 22 days after calving produced 19,392 lbs. fat, equivalent to 24 lbs. 3.8 oz. butter 80 per cent. fat, or 22 lbs. 10 oz. 85.7 per cent. fat.

Seven four-year-olds averaged: Age 4 years, 8 months, 8 days; 19 days after calving; milk 418.3 lbs.; butter fat 15.061 lbs., equivalent to 18 lbs. 13.2 oz. butter 80 per cent. fat, or 17 lbs. 9.1 oz. 85.7 per cent. fat. One of this class commencing record 33 days after calving produced 19,229 lbs. butter fat equivalent to 24 lbs. 0.6 oz. butter 80 per cent. fat, or 22 lbs. 6.9 oz. 85.7 per cent. fat.

Ten three-year-olds averaged: Age 3 years, 7 months, 28 days; 32 days after calving; milk 362 lbs.; butter fat 12.269 lbs., equivalent to 15 lbs. 5.4 oz. butter 80 per cent. fat, or 14 lbs. 5 oz. 85.7 per cent. fat.

Nine two-year-year-olds averaged: Age 2 years, 1 month, 14 days; 39 days after calving; milk 268.3 lbs.; butter fat 8.915 lbs., equivalent to 11 lbs. 2.3 oz. butter 80 per cent. fat, or 10 lbs. 6.4 oz. 85.7 per cent. fat. One of this class dropped her calf at fourteen and one-half months old. She commenced her record nine days after calving and produced 242.4 lbs. milk containing 7.347 lbs. fat during the seven days of her record.

That the dual purpose cow is gradually coming to the front was demonstrated pretty clearly in the dairy test at the Winter Fair. The Shorthorn cows in the test made a very good showing as will be seen by the report of the milk test published elsewhere in this issue. One cow, Jubilee's Julian, shown by H.

K. Fairbairn, Thedford, Ont., made a fair record. This same cow at the Winter Fair at Brantford in 1898, in 48 hours gave 84.5 lbs. of milk, which tested 3.6 per cent. At London the following year this same cow also made a good showing, and this year at Guelph is well up in the test. Jubilee's Julian is by Roy Albert 13020. Her dam was Jubilee 15772, by imported Warrior. She belongs to one of the best milking families in Scotland.

At the sale in connection with the Chicago Fat Stock Show the Shorthorns headed the list. Fifty-two females sold for \$33,675, an average of \$647.60 each; 17 bulls sold for 310,085, an average of \$593.25, and the 69 head for \$43,760, an average of \$634.20. Only three animals came to Canada. Missie, 153d, calved Feb. 20, 1896, sire Wanderer, bought by W. C. Edwards & Co., Rockland, Ont., for \$6,000. Nonpareil, 47th, calved Jan. 21, 1899, sire Nonpareil Aberdeen, bought by W. D. Flatt, Hamilton, Ont., for \$1,090; and Secret Sultana, calved Dec. 30, 1894, sire Baron Saundere, bought by Hon. H. M. Cochrane, Hillhurst, Quebec, for \$725.

The Herefords also sold well. Sixty-nine females sold for \$27,310, an average of \$395 each; 27 bulls for \$9,215, an average of \$341 each, and 96 head for \$36,525, an average of \$380 each. The highest priced Hereford was Betty 2nd, 76805, calved Oct. 10th, 1897; sire Benjamin Wilton, and sold to J. C. Adams for \$4,500.

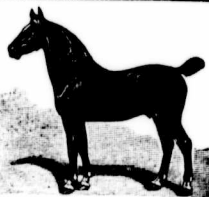
In Aberdeen Angus 96 head sold for \$33,055, an average of \$344 each, 72 females sold for \$25,770, an average of \$357.89, and 24 bulls for \$7,285, an average of \$303 each.

In Galloways 17 females sold for \$4,020, an average of \$236.40 each, 16 bulls for \$5,385, an average of \$336.50 each, the 36 head bringing an average of \$285 each. Col. McCrae of Guelph purchased the cow Ethelinda of Black Hawk, 14403, calved Sept. 24, 1898, sire Nelson of Brookside, for \$105.

### Pigs

There was a large sale of Berkshires at Chicago. Forty-eight animals sold for an average of \$57 each. Lady Columbus 2nd was bought by T. A. Cox, Brantford, Ont., for \$58. The highest price paid was \$251 for the sow British Empress, 59870.

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is the safest and most effective lotion or blister for ailments of

### HORSES and CATTLE

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60lb. boxes, 1lb. packages,.....25c. lb.  
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If your Druggist does not sell it, send direct to  
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Laboratory, PORT HOPE, ONT.  
It will cure and prevent hog cholera.

**PUBLIC OPINION** is strong in favor of Pain-Killer. For over sixty years the foremost household remedy for cuts, bruises, sprains, and all bowel complaints. Avoid substitutes, there is but one Pain-Killer, Perry Davis'. 25c. and 50c.

**Cattle Distemper.**

Press Bulletin, Kansas, Experiment Station

Within the past two years occasional reports have come to this department from different parts of the State of what appears to be a contagious disease of cattle that in some respects resembles "lump jaw." During the past few months these reports have been more frequent. Investigations show the disease to be entirely different from true "lump jaw." The most important differences to be noticed by an ordinary observer are as follows: In cattle distemper the swelling comes on suddenly and always in the region of the throat and appears to be more contagious than true "lump jaw." True "lump jaw" comes on slowly and usually attacks the region of the face or jaws, and the lump or tumor appears to have grown fast to the bone in most cases. Cattle distemper attacks young animals most frequently, but may attack cattle of any age. The first symptom of cattle distemper usually noticed is a swelling of the throat especially the glands in this region. This swelling appears quite suddenly, often within twenty-four hours, and is usually severe. This is preceded by a slight discharge from the eyes and nose and is associated with a slight fever, the temperature of the animal rising two or three degrees. As the disease progresses the swellings increase in size and an abscess containing a rather thick, yellow pus or "matter" forms. Sometimes two or three of these abscesses will form about the throat, on the side of the head or along the jaw. These swellings do not affect the bone but occur in the loose tissue and glands. If left alone the abscesses break and discharge pus but do not heal rapidly, often remaining open and running for some time.

**Treatment.**—The disease appears to be contagious, but so far, experiments do not show in what way. It is not highly contagious. Affected animals should be isolated from the healthy and not allowed to eat or drink from a common receptacle. In the early stages, if the swelling is thoroughly rubbed twice daily with a stimulating liniment it will usually "scatter" the swelling so no abscess will form. A liniment composed of equal parts of turpentine and kerosene oil is good. If two ounces of gum camphor is dissolved in half a pint of turpentine and an equal amount of kerosene added the liniment is improved. This should be rubbed on twice daily until the skin begins to get sore. After pus has formed the abscess should be opened freely, washed out with warm water and a strong solution of blue vitriol

"THE D. & L." EMULSION OF COD LIVER OIL taken in cases of general debility and loss of appetite, is sure to give the best results. It restores health and renews vitality. Davis & Lawrence Co., Ltd., manufacturers.

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(sulphate of copper), a tablespoonful dissolved in one-half pint of water. This can be injected once daily for two or three days. Pure tincture of iodine is also good. In some cases putting a small lump of blue vitriol in the cavity works well. If the abscess is not opened early there is a tendency for other abscesses to form.

Nearly all cases recover in a few weeks. Where they do not heal, the cavity can be swabbed out with "butter of antimony" once, and then the blue vitriol solution used.

N. S. Mayo.

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Two choice bulls about a year old

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

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

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

Come and See, or Write for Prices

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

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**IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM**

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

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

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

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

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

# Market Review and Forecast

Office of The Farming World,  
Confederation Life Building,  
Toronto, Dec. 23rd, 1901.

The holiday quiet in wholesale trade continues while the retail business is increasing very fast. The results of the year's business in wholesale lines has, however, been very satisfactory. Profits, though said to be small, owing to keen competition, have been compensated for by a large volume of trade. Money seems ample for all legitimate purposes and is quoted at 5 per cent. on call. Discount rates remain at from 6 to 7 per cent. though one or two special cases are reported at 5 per cent.

## Wheat

The visible supply of wheat in the U. S. and Canada is piling up at the rate of about 5,000,000 bushels per week and is now 59,356,000 bushels as compared with 61,682,000 bushels at this time last year. During the past four months the visible supply has gained about 33,000,000 bushels whilst during the same period last year it only gained 12,200,000 bushels. The general tone of the market is not quite as good as a week ago. Cables are reported firm and a steady feeling prevails on this side, though the bulls are trying to make a little capital out of the effect of the recent cold snap in the west on the growing crop. Since two weeks ago when the climax in prices was reached in the speculative market there has been a decline of 5c per bushel in wheat for May delivery. Locally the market is quiet. Red and white is quoted at 75c to 76c middle freights, goose at 66c to 67c, and spring at 75c east. No. 1 Manitoba hard is quoted at 88 $\frac{1}{2}$ c, No. 1 Northern at 83c, and No. 2 at 79c grinding in transit. On Toronto farmers' market red and white bring 70c to 79c, goose 67c and spring 66 $\frac{1}{2}$ c to 70c per bushel.

## Oats and Barley

The English market for oats is easier though prices there for Canadian oats have been very high. The market on this side is a little quieter and lower with No. 2 white quoted at 44c to 45c middle freights. On the farmers' market oats bring 47c to 47 $\frac{1}{2}$ c per bushel. Both feed and malt barley seem to be scarce and in demand. Quotations here range from 51 $\frac{1}{2}$ c to 57c as to quality and point of shipment. On Toronto farmer's market malt barley brings 53c to 61c per bushel.

## Peas and Corn

The pea market keeps firm here at 84c middle freights. On the local farmers' market small peas bring 78c per bushel.

Corn keeps high and there is little likelihood of a drop in prices. Canadian yellow in car lots is quot-

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<p>\$1 and upwards received on deposit Interest paid or compounded half yearly at.....</p>	<p><b>3<math>\frac{1}{2}</math>%</b></p>	<p>\$100 and upwards received for which de- bit notes are issued with con- pensions attached for half year interest at.....</p>
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ed at Montreal at 72c to 73c on track and American at 75c to 76c. Canadian yellow is quoted here at 53c to 63 $\frac{1}{2}$ c for mixed west.

## Bran and Shorts

Ontario bran is quoted at Montreal at from \$20 to \$21 and shorts at \$22 to \$23 in car lots. City mills here sell bran at \$20 and shorts at \$22 in car lots f. o. b. Toronto.

## Potatoes and Beans

Car lots of potatoes are quoted at Montreal at 80c to 87c and jobbing lots at 90c to 95c per bag as to quality. The demand is strong here and the market firm at 75c for car lots on track. On Toronto farmers' market potatoes bring 75c to 85c per bag.

In beans dealers state that primes this year are so good that there is no demand for hand picked. Montreal quotations are \$1.35 in car lots and \$1.40 to \$1.45 per bushel in jobbing lots. These figures are also being paid by dealers west of here. Primes are quoted here at \$1.45 to \$1.50 and hand picked at \$1.60 to \$1.65 in large lots.

## Hay and Straw

Canadian hay is in good repute in England and the demand there is good. Prices on this side keep steady and a big business is doing, especially east and in Quebec. At Montreal quotations for baled hay are: Timothy \$9.25 to \$11, clover mixture \$8.25 to \$9, and clover \$7.50 to \$8 per ton. Baled straw is quoted there at \$5 to \$6. There is a good steady market here at last week's higher prices, which are \$9.50 for No. 1 timothy and \$8 to \$8.25 for No. 2 and mixed. On Toronto farmers' market timothy brings \$11 to \$12.50, clover \$7.50

to \$9, and sheaf straw \$8 to \$9 per ton.

## Eggs and Poultry

The egg market keeps firm under good local demand both here and at Montreal. There is a big demand from the Old Country. At Montreal quotations are all prices. Strictly new-laid sell there at anywhere from 40c to 50c per dozen. Fresh fall stock is quoted at from 22c to 28c in large lots. Here the market is firm at 25c for selected fresh in case lots. Fresh gathered sell at 18c to 20c. On Toronto farmers' market new-laid bring 30c to 40c per dozen.

There has been a lot of buying of dressed poultry at Montreal for the Christmas trade. Choice dry-picked turkeys sold at 9 $\frac{1}{2}$ c to 10c, chickens at 8 $\frac{1}{2}$ c to 9c, geese at 5 $\frac{1}{2}$ c to 6 $\frac{1}{2}$ c, and ducks at 8c to 9c per lb.

There is a lot of inferior stuff being put on the market, which sells at much lower figures. Offerings here have been rather light last week, though larger supplies are looked for this week. Prices are steady at 7c to 8 $\frac{1}{2}$ c for turkeys and 5 $\frac{1}{2}$ c to 6 $\frac{1}{2}$ c per lb. for geese, 40c to 75c per pair for ducks and 20c to 50c for chickens in jobbing lots. On Toronto farmers' market live and dressed chickens bring 25c to 50c and ducks 40c to 70c per pair, and geese 6 $\frac{1}{2}$ c to 7c and turkeys 8 $\frac{1}{2}$ c to 10 $\frac{1}{2}$ c 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) 2 $\frac{1}{2}$ c 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.

## 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**

## Seeds

The demand for Canadian clover seed in England continues but prices on this side are said to be above an export basis. At Montreal red clover is quoted at \$8.25 to \$9.75, alsike \$10.75 to \$12.75, and timothy \$5.75 to \$6.25 per cwt. On Toronto farmers' market alsike brings \$6 to \$8.25, red clover \$4.80 to \$5.10, and timothy \$2 to \$2.75 per bushel.

## Fruit

There is not much doing in the apple market, prices being too high and the supply too small for big business. At Montreal No. 1 apples are quoted at \$4.50 to \$5.00 per barrel in large lots. On Toronto farmers' market apples bring from \$2.50 to \$4.50 per barrel.

## Cheese

The cheese situation continues to improve and the market is as healthy as at any time this season. Stocks are greatly reduced in England and retailers there were never known to be as bare of supplies as at the present time. This should mean a healthy market from this on. The consumptive demand has improved and there is much more inquiry for Canadian cheese. Stocks now held in Canada are estimated at from 400,000 to 600,000 boxes. Finest Western Septembers are quoted at Montreal at 10c to 10½c and finest Easterns at 9½c to 9¾c. Nearly all the cheese is out of factorymen's hands and holders are inclined not to let it go too quickly, expecting higher values later on.

## Butter

There is a fair export demand for creamery butter and the market rules steady. Montreal dealers state that while the Quebec summer creamery butter is as a rule better in quality than that made in Ontario, the latter province makes the best winter butter. The Trade Bulletin summarizes last week's butter trade as follows:

"There is a fair business doing for export, at 20½c to 20¾c for choice creamery. The local trade is also taking a few lots in tubs at 20½c to 20¾c and in a few instances jobbers have paid 21c for fancy. Sales of about 750 packages of good useful to fine creamery are reported at 19c to 20c. In dairy butter the market is dull, a few small lots of Western and Manitoba having sold at 14c to 15c for common qualities. During the past week the shipments from Portland and St. John were 8,631 packages, which is very good for winter exports."

Offerings of both creamery and dairy are more plentiful here. There is, however, too much low grade and inferior butter offering. Creamery is steady at 20c to 22c for prints and 19c to 20c for solids. Dairy pound rolls sell at 17c to 18c and tubs at 16c per lb. in jobbing lots. On Toronto farmers' market pound rolls bring 16c to 19c and crocks 15c to 18c per lb.

## Cattle

A good steady trade has been done in live stock during the week, which closed with a steady market

and no stocks held over. Cables were higher on Friday and the outlook for choice quality good, though when the Xmas trade is supplied things may be quieter for a week or two. On Friday the run of stock at Toronto cattle market was light, comprising 583 cattle, 1,377 hogs, 757 sheep and 15 calves. The quality of fat cattle was only medium, few choice lots being offered. All the offerings found a market at fair prices according to quality. Prices for choice quality were no weaker but common grades were easy at the prices given.

Export Cattle—Choice loads of these are worth from \$4.70 to \$5.25 per cwt., and light ones \$4.25 to \$4.65 per cwt. Heavy export bulls sold at \$4.12 to \$4.40 and light ones at \$3.50 to \$3.70 per cwt., choice export cows sold at \$3.40 to \$4.00 per cwt.

Butchers' Cattle—Choice picked lots of these, equal in quality to the best exporters, weighing 1,150 to 1,260 lbs. each, for the Xmas trade, sold at \$4.50 to \$5.25 per cwt., good cattle at \$4.75 to \$4.90, medium at \$3.40 to \$3.55 and inferior to common at \$2.25 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 \$3.00, and off colors and those of inferior quality at \$1.75 to \$2.00 per cwt. Light stock bulls, 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 \$4.75 to \$7.25 per cwt. At Toronto market ordinary calves bring \$2 to \$10 each.

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

## Sheep and Lambs.

Both sheep and lambs were in good demand and sold at firmer prices. Sheep sold at \$3 to \$3.25 per cwt. for ewes and \$2 to \$2.50 for bucks. Spring lambs sold at \$3 to \$3.50 each and \$3.50 to \$4.25 per cwt. Erick Bros., East Buffalo, write us on Thursday last in reference to Canada lambs as follows:

"The supply has been moderate this week, and with a very good demand trade has ruled active and strong on the basis of \$5.25 to \$5.40, with several sales yesterday at \$5.50 on the handy weight order, weighing around 86 to 92 lbs. The extreme heavy weight lambs, weighing around 100 lbs. and over, are rather dull on the basis of \$5.25. The trade to-day closes up steady with a fairly good clearance, and unless the Canada lambs are entirely too heavy I don't look for any material decline in them at present. Buck lambs selling at \$4.50 to \$4.75, according to weight and quality."

**Windsor  
Salt  
Makes  
Good Butter  
Better  
Yet!**

**BEST GROCERS SELL IT**

## LOW WIDE-TIRE WHEELS

## FOR WAGONS

Made to fit your axles.

If you do not already know of the great advantages, send at once for Catalogue to the

**Dominion Wrought Iron Wheel Co.**

9 and 11 Brock Ave., TORONTO, ONT.

## WILSON'S HIGH-CLASS SCALES

SPECIAL PRICES THIS MONTH

On 2,000 lb.

**Diamond Steel Bearing  
SCALES**

Write To-day.



**C. WILSON  
& SON**

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LOOK INTO  
THIS . . .

**The Atlantic Refining Company**

Manufacturers and Importers of  
Illuminating and Lubricating Oils,  
Grease and Specialties.

Foot of Jarvis St. TORONTO, ONT

**Hogs.**

The hog market continues to advance and is likely to keep up from this on. Prices on Friday advanced to \$6.37½ for select bacon hogs, \$6 for lights and \$5.87½ for fats. Unculled lots sold at from \$6.15 to \$6.25 per cwt.

For the week ending December 28th, the Wm. Davies Co., Toronto, will pay \$6.40 per cwt. for select bacon hogs, \$6.15 for lights and \$6.15 for fats.

The Trade Bulletin's London cable of Dec. 19 re Canadian bacon reads thus: "The market is steady at the decline of last week. No. 1 Canadian sides 46s to 50s."

**Horses.**

The general trade in horses keeps quiet and will likely be so for a few weeks yet. At Grand's all attention is being directed toward filling the order for horses for the new contingent. 220 were shipped to Halifax last week and 300 more will go this week.

**The Market Classes of Horses.**

Market classes and types are fixed not by the breeds but by the uses to which horses are put.

As these uses are definite, the type and the class are fixed.

As these uses are exceedingly varied, there are often wide gaps between the market classes.

A horse that drops between the classes is a cheap horse, no matter how good an animal, either because there is little use for him or because the supply is unlimited.

The best horse to breed is one that most fully meets a definite, constant, and strong demand, and has therefore a high average selling price.

The cavalry horse and the fire horse are good examples of valuable horses that the breeder cannot undertake to produce because the demand is too limited. The demand for them will always be satisfied from the general supply.

Phenomenally high prices are as much due to the fancy of the individual purchaser as to the character of the animal. In any event they are seldom realized and are to be sought by the dealer and not by the breeder, as they represent but one out of hundreds or even thousands—too few to breed for.

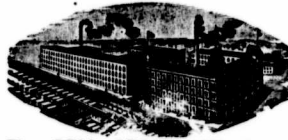
The farmer should keep himself acquainted with standard classes in steady demand at uniformly good prices, breed these, and pay no regard to high speed, phenomenal sales, or fancy values.

Farmer Greene—"Glad to see ye home, Silas! How's things in N' York?"

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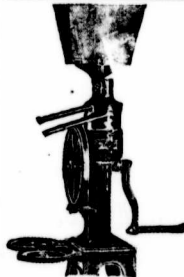
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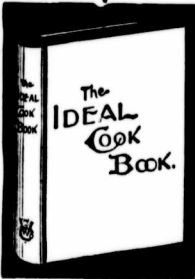
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