

# The Farming World

A PAPER FOR  
Farmers and Stockmen

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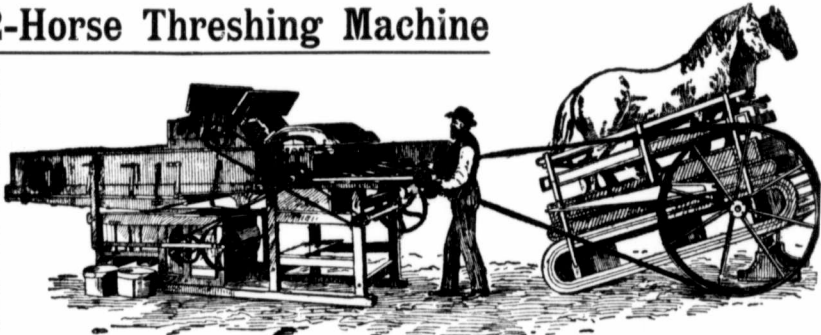
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**Our Readers**

The publisher of THE FARMING WORLD exercises the utmost vigilance in excluding from the advertising pages of the paper all business announcements of a questionable character. He believes every advertiser represented in this issue to be thoroughly responsible, and that the goods offered will be found as described. Persons writing to the advertiser will usually find it to their advantage to mention THE FARMING WORLD.

**OUR ANNUAL HORSE NUMBER** will appear on April 16, and will this year be larger and more interesting than ever before. An unusually large edition of the number will be printed. Advertisements for that issue should be handed in early.

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**With the**  
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Progressive Cheese and Butter makers use : : : : :

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Can do for you what they are doing for others—grind MORE grain with the SAME POWER than ANY OTHER GRINDER. Made for use with Tread Power, Sweep Power, Windmill or Steam Engine.

Tavistock, Ont., Feb. 22, 1901.  
I am well satisfied with the No. 2 R. E. Grinder in every respect. I use a 13-foot Woodstock Power Mill and can grind from 15 to 20 bushels per hour. It runs very easy; and I would highly recommend it to anyone wishing to buy a grinder. ADAM FUSE.

Sarsfield, Ont., Jan. 24th, 1901.  
The R. E. Grinder I purchased from you in December last has proved an entire success and I am greatly pleased with it. I use a two horse Tread Mill, grinding about 12 bu. hols per hour. With one horse I grind six bushels per hour without giving it much attention. WALTER WILSON.

Eden Grove, Ont., Jan. 21st, 1901.  
I am pleased with the R. E. Grinder I purchased from your agent, Mr. N. C. Royce. It runs very light and does its work fast and well. We ground a ton of mixed barley, peas and oats in 40 minutes, with a 14 h.p. engine, using 90 pounds of steam. And ground it fine. I think it is the best grinder on the market to-day. M. SCOTT.

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Medals for Plows:—Chicago, 1893; Paris, 1900.



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# The Farming World

For Farmers and Stockmen

VOL XVIII

MARCH 12th, 1901.

No 29

## Our Poultry Industry

**N**O branch of agriculture is receiving more attention at the present time and justly so, than poultry keeping. In poultry raising the farmer has an industry which, if properly looked after, and given the same attention that he gives to the other branches of his business, will be the means of greatly increasing the revenue from his farming operations. Some enthusiastic poultry raisers claim that the farmer can make as much per head from his hens as from his sheep if both are given equal attention. Whether this is so or not we do not intend discussing here. It is sufficient for us to know that many farmers and others, who have made poultry-raising more or less of a specialty, have obtained splendid returns from their investment. The industry is capable of immense development, and instead of sending eggs to Great Britain to the value of two million dollars annually, we should be sending live times that amount. With the egg and dressed poultry industries developed to their fullest extent Canada should be receiving annually \$20,000,000 from these branches. Canadian eggs and poultry never stood higher in the estimation of the English consumer than now, and therefore the time is opportune for pushing the business for all it is worth.

This number of The Farming World is devoted specially to poultry raising. From the prize essays, contributions and the poultry census, which are given elsewhere, our readers will be able to secure a large amount of information that will be helpful in enabling them to carry on the poultry branch of their farming operations in the very best way. The illustrations given are typical specimens of each of the utility breeds which, according to our correspondents, have been found most profitable for Ontario. It is our intention to devote more attention every week to the poultry industry, and we shall be only too glad to hear from our friends interested in this matter. We have obtained a large amount of information from the census returns and from other sources, which we have been unable to use in this number, but which will be given later.

We desire to thank our many friends who have so ably assisted us by answering our questions and who have contributed essays, especially

those who do not figure in the prize list. Their efforts are none the less appreciated by us than those of the winners, and we trust the assistance one and all have rendered will be rewarded by increased interest and renewed energy in the further development of that most important branch of agriculture—the poultry industry.

## The Ottawa Sale

The scheme for holding Provincial Auction Sales of pure-bred stock, which was inaugurated under such favorable auspices at Guelph on Feb. 27 and 28 last, scored another distinct success at Ottawa on Wednesday. In several respects the Eastern sale was more successful than its predecessor in the West. The prices obtained averaged higher, especially for Shorthorns, the average quality of the animals offered was better, the bidding was more brisk and the sale throughout more expeditiously conducted.

The sensation of the Ottawa sale was the selling of the Shorthorn bull, Triumph, bred and contributed by the Hon. John Dryden, to the Government of Prince Edward Island for the handsome sum of \$505. The Island Government was represented at the sale by the Hon. Mr. Rogers, Commissioner of Agriculture, who also secured for his Government another fine animal bred and contributed by Jeffrey Bros., Whitby, Ont., at \$230. A Manitoba breeder was a strong competitor for the Dryden bull, but he stopped bidding at \$500, and so this splendid type of the breed went to our most easterly province instead of to the western prairie. In him the Island Government have secured a prize, which, if taken the proper care of, will do much to raise the standard of Shorthorns in the province by the sea.

Triumph is a roan of very fine quality, well set up and rounded off in splendid shape. In addition to his individual qualities he has a choice line of breeding behind him. He was calved on Oct. 13th, 1899, his sire being Revenue—21503, a large, thick fleshed bull, winner of second prize in Toronto as a yearling, his sire being the prize-winning bull, Earl Moray—16188, got by the Cruickshank bull Eclipse—8928. Revenue's dam was got by Lord Lovell—2030, a Cruickshank bull of the Matchless Family and winner of 30 first prizes. Lord Lovell's sire was the renowned Barmpton Hero, bred by

Mr. Dryden, and one of the most successful show and stock bulls of his time in Canada. Triumph's dam was Miss Lavender, whose sire was the Earl of March—17252, bred by Messrs. J. and W. Watt, sired also by Barnpton Hero. One of his sons, Sittyton Hero, used in the herd of Jas. I. Davidson, was recently sold at four years old for \$700. Thus, both in breeding and individuality, the Prince Edward Island Government have secured an animal fit to head any herd in the land.

The demand at Ottawa, as at Guelph, was for Shorthorns, and as many more could have been sold to good advantage. There were two persons who contributed largely to the success of the sale, Mr. John Bright, of Myrtle, Ont., and Mr. A. M. Todd, of Mich. The former contributed fifteen splendid Shorthorns to the sale, which sold for a total of over \$1,900, and the latter purchased eleven animals, paying prices which averaged pretty well up to \$200 each. Mr. Todd purchased eleven of the best Shorthorns offered at Guelph, and, in all, is taking twenty-two Canadian-bred animals to form part of his herd at Kalamazoo, Mich. The success of both sales was due in no small degree to Mr. Todd's presence and his active buying.

A large number of Ayrshires were offered at Ottawa, and for which there did not appear to be a very active demand. The quality offered was not the choicest, and considering everything, the prices realized, though small, were fair. One bull of good breeding, contributed by W. W. Ogilvie, sold to W. C. Edwards & Co. for \$130. The other dairy breeds only brought fair prices, while the pigs sold fairly well, especially the sows. Contrary to the expectations of many Western breeders, the chief demand at Ottawa was for Shorthorns, and next year will see a much larger contingent of this breed offered at the Eastern sale.

It was as well, perhaps, for the success of future sales that all the prices paid, both at Guelph and at Ottawa, did not reach the fancy figures that some of the highest quality sold for. A great many farmers who desire good stock consider these fancy prices beyond their reach, and would not care to patronize the sales unless there was some chance of getting fairly good animals at reasonable values. Once the sales are thoroughly established, and the farmers become educated up to the advantages of good stock, they may be induced to pay higher prices in order to secure the very best animals.

The educational advantages of these sales are very great, and the two thousand farmers and others who attended at Guelph and Ottawa we trust carried away with them lessons as to the value of producing only the best, which will have a most wholesome effect in improving the quality of the cattle raised in this country. The figures we gave last week showing the prices for Canadian cattle in England, as compared with those from the United States and Great Britain, clearly prove that some distinctly forward move is necessary along the lines of improving the quality of our beef cattle.

## Our Foreign Markets

In his evidence before the Agricultural Committee of the House of Commons last week, Prof. Robertson, Agricultural and Dairy Commissioner, dealt with the expansion of markets for Canadian products and the facilities for transportation. He announced that the steam-

ship companies would this season put in improved ventilating fans and refrigerating chambers for the introduction of cold air. The dishonest packing of apples and the danger to the cheese trade from the using of poor packages were referred to. He advised cheesemakers against making cheese out of the regular season, as they did last year. Even though higher prices might be obtained for the moment, the prospect for future exports was injured. He advocated the export of beef in the dressed state instead of on the hoof, and expressed the hope that with a wise and progressive policy the education of farmers and shippers in improved methods of production and handling, the exports of food products, which have increased from \$24,000,000 to \$72,000,000 in the last ten years, will in the next ten years grow to \$200,000,000. He believes this will take place, even if there is no great increase of population, simply through the expansion caused by the producers turning out a better article in larger quantities, and by its being shipped in a perfect condition.

## Important Announcement

In opening the Ottawa sale last week the Hon. Sydney Fisher, Minister of Agriculture, made a definite statement regarding the outcome of his visit to Washington, as announced in last week's issue. The arrangement is that the certificates of officers of the Canadian Department of Agriculture, in regard to the tuberculin test, will be accepted at the frontier by American officials for all pure-bred cattle from Canada, destined for the United States. The Dominion Government officials will test all such cattle free of charge. This is a great improvement over the regulation now in force by the United States Government, by which all such cattle are to be tested by an American officer. From the reports of Mr. Fisher's visit published, many were led to believe that the use of the tuberculin test between Canada and the United States would be discarded altogether. It is disappointing that it is not so, as there is no particular need of it in the interest of the public health in both countries.

## Government Aid to Roads

The Hon. G. W. Ross, Premier of Ontario, introduced a bill into the Legislature last week to provide for provincial aid to roads. The provisions of the bill are as follows:

(1) That the sum of \$1,000,000 shall be and is hereby set apart to be paid out of the consolidated revenue of the Province to aid in the improvement of public highways, subject to the terms and conditions hereinafter set forth.

(2) The highways to be improved may be designated and assumed by by-law of the County Council, with the assent of the councils of the local municipalities through which such highways pass; provided always that the highways so designated shall, as far as practicable, facilitate the direct transportation of the agricultural produce of the county or townships immediately interested to the local markets of the county.

(3) In the event of the local municipalities or of a majority of them disapproving of any by-law of the County Council, as in the previous section mentioned, then the County Council shall submit such by-law to a vote of the ratepayers of the county, such vote to be taken and held on the same day as the elections of the

local municipalities of said county are held.

(4) When any by-law as aforesaid fails in receiving the support of a majority of the rate-payers of the whole county so voting, then the Council of any local municipality in the county may within one year of the passing of this act pass a by-law designating the roads within such local municipalities to be improved; but no by-law for the improvement of roads in any municipalities shall take effect until such by-law is approved by a majority of the ratepayers.

(5) Any highway, in order to come under the provisions of this Act as to aid, shall be constructed or repaired according to the regulations of the Public Works Department with respect to highways, and shall be subject to the inspection of an officer appointed by said department.

(6) On the completion of any work of road improvement under this Act the Council of the municipality under which such work was carried on shall submit to the Public Works Department a statement setting forth the cost of such work, such statement to be certified by a competent engineer that the regulations of the Public Works Department have been complied

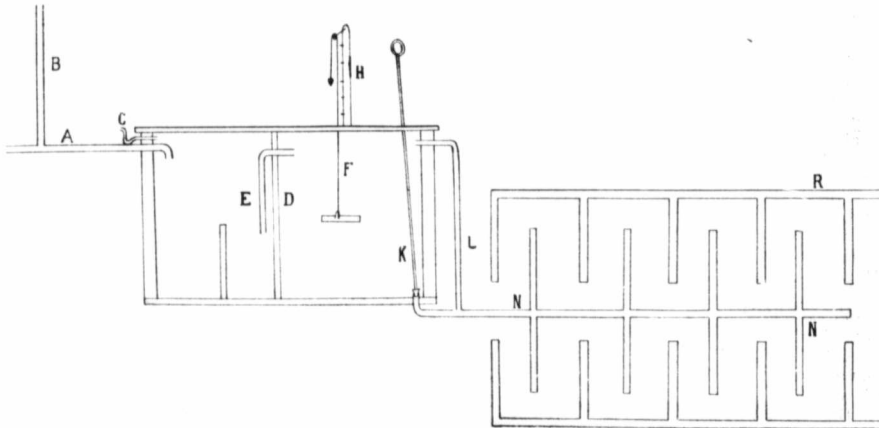
## Sub-Surface Sewerage System

By A. SMITH, Instructor Western Dairymen's Association.

The method of disposing of the sewerage by the sub-surface system is both effective and economical. It also enriches the soil through which it is drained and prevents any foul smell from developing. It enables the maker to keep the factory and surroundings in a good sanitary condition, which is absolutely essential if satisfactory results are to be obtained.

First a box is made with a partition through the centre, forming two boxes, one of which is large enough to hold the washings from a factory for a single day. It may be situated near the factory or at a distance away, as conditions permit. If the factory is elevated sufficiently the box may be sunk in the ground and covered with earth, but if it has to remain on top of the ground it is preferable to build it of brick and cover the top lightly to prevent the escape of noxious gases which form within it.

In laying the drain from the factory it is advisable to use sewer pipe, especially if it is situated near the well or if there is any danger of



Plan of Sub-Surface Sewerage as in use at Milverton Station. The following is the key to the lettering: A—Pipe from factory to box. B—Ventilator. C—Goose-neck pipe. D—Partition. E—Overflow from No. 1 to No. 2. F—Float. H—Indicator. K—Plug. L—Over-flow from No. 2. N—Filter bed. R—Under-drain.

with, and on the receipt of said statement by the Provincial Treasurer, certified and approved by the proper officers of the Public Works Department, the municipality shall be entitled to receive out of the moneys hereby set apart for public highways an amount equal to one-third of the cost of the work, but not to exceed the proportion of the appropriation to which such municipality is entitled.

(7) Any municipality may apply the whole or part of the moneys to which it may be entitled under this Act towards paying any expenses that may be incurred for the purchase or abolition of toll roads within such municipalities, and the purchase of approved road-making machinery.

(8) The statute labor, for which all lands fronting on roads constructed or repaired under this Act may from year to year be liable, shall be commuted and shall be applied towards the improvement of the other highways of the municipality as may be determined by the Township Councils concerned.

injuring the water supply, otherwise ordinary field tile will do and will be somewhat cheaper. The drain must be provided with a trap, to prevent gases or foul smells from returning to the factory. Then attach a vent pipe V2 inches galvanized) to the drain between the factory and the box, and allow it to extend above the building. This will carry off the gases formed in the box or drain. The box is provided with a small goose-neck pipe, which admits fresh air and forms a draught for the ventilator. The box, you will notice, has a partition down the centre with a pipe through it near the top and extending to about the centre. When the first box becomes full the water is allowed to filter through into the second, and on account of its being taken from below the surface nothing but the liquid matter flows through. The solid matter is all retained in the first box, and is quickly decomposed or oxidized by the different forms of bacteria at work in it. A filter bed is then provided by laying a sufficient number of 4 inch tile to hold the amount of water con-

tained in the second box from 10 to 12 inches beneath the surface of the ground, they being perfectly level and having no outlet. The sewerage can be disposed of in a very small space of ground if desired, by constructing one long drain and a number of branch drains about 10 feet apart leading from it. When the second box becomes full the plug or valve is lifted and the water allowed to run out quickly, carrying any sediment there may be with it and distributing it evenly throughout the filterbed. It is necessary to have one or two ventilators in the filterbed to allow the air to escape while the water is running in. The outlet of the box is then closed tightly, and by the time the box is refilled the water in the tile has been absorbed by the soil, and any solid matter left therein will be decomposed by the action of bacteria. It is necessary that the outlet of the box be closed tightly, otherwise the filter bed will not work satisfactorily.

The soil around some factories may be of such a nature that it would not readily absorb all the water used. It would then be necessary to under-drain the filterbed, which would carry off the surplus moisture and give the filterbed greater capacity. Instead of putting the deep drains directly under the filterbed I would advise putting a long drain along each side and then extending branch drains from those just half way between the branch drains and the filterbed. The water would then drain through 4 or 5 feet of ground to the under-drain, which would render free from solid matter and it would then run off quite clear.

The system in operation at the illustration and experiment station, consists of an ordinary tile drain leading from the factory to the box having a trap on the end and a bent pipe between the trap and the box. The box is 9 feet long by 2 1-2 feet deep by 3 feet 6 inches wide, and holding 500 gallons. It has a partition in the centre making two boxes of 250 gallon capacity each. 250 gallons is supposed to be about the amount of water used at the average factory in a day. Then 500 4 inch tile, which hold 250 gallons, were laid perfectly level in the ground and having no outlet. This plan worked well for about eight weeks, when there came a few days of very wet weather. As the soil was very heavy clay, the water began to come to the top. We then put in two under-drains, which carried off the surplus water. Afterwards there was no further trouble and the sewerage system worked satisfactorily. On opening the box at the end of the season, we found that the first box was nearly half full of solid matter. The second box was fairly clean, and there was a slight coating of greyish matter on the inside of the tile in the filterbed.

## CORRESPONDENCE

### More on the Summer Fallow

Editor THE FARMING WORLD:

"Summer fallowing ought to be done away with as hurtful rather than beneficial" is the text which your correspondent, Mr. Rogers, desires explained. What result is expected from summer fallowing? We are told, first, "it cleans the land of thistles and noxious weeds;" second, "it releases plant food for the use of the succeeding crop." We maintain that as a land cleaner it accomplishes nothing but what can be done without the loss of a year's crop, and with better results. Instead of a summer fallow

gang-plow lightly after harvest. By frequent cultivation with a gang-plow, disc-harrow or cultivator, from say August 15th until it is time to sow corn and turnips, followed by careful cultivation of those crops, thistles and weeds can be much more surely eradicated than by summer fallowing.

Second, "It releases plant food." So it does, but, unfortunately, plant food is easily wasted. When there are no plants to take it up much of the plant food released passes off and is lost. Perhaps in most soils, however, the worst feature of summer fallowing is that it to a great extent destroys the humus in the soil, leaving the soil in a much worse condition to resist drouth on account of the loss of that most important substance. People sometimes urge that because we obtain a grand crop of wheat after a summer fallow therefore it must be of great benefit. Those people forget that if a crop of clover does not follow a summer fallow, thereby restoring the humus which the fallow has, to a certain extent destroyed, the field so summer fallowed is in about as poor a condition as can be imagined for the following crop.

As regards surface cultivation, take a leaf from natural fertilization; the leaf or dried grass falls year by year and decays, leaving on the surface the humus resulting therefrom. Clean away the timber, or break the prairie sod only a few inches deep, get an enriching shallow seed bed, in both cases underlaid by soil that never saw the sun, and we get crops of the highest quality. Follow nature; follow such a system as will keep the humus, the manure resulting from either the decay of stubble, weeds, etc., or barn-yard manure on the surface, from which the rains will wash the soluble parts into direct contact with the feeding roots of growing plants, the lower strata of soil being left in a mellow compact condition, just suitable for the drawing of the moisture from the sub-soil and for the use of the crop.

Nature abhors a summer fallow. Is there any waste place where the soil is exposed? How soon does she step in and endeavor to cover it up by the growth of weeds, grass, shrubs or trees? Follow her lead. Keep something growing to prevent the fierce rays of the sun from scorching the soil in summer and to bring plant food from the sub-soil that otherwise would have been lost, and also to spread a blanket of fallen vegetation over the bosom of mother earth during the trying days of late fall, winter and early spring. A. Elliott.

Galt, Ont., March 1, 1901.

Note—Where Mr. Elliott speaks of a crop of clover after a summer fallow, he means, no doubt, that the crop would not be forthcoming till the second or usually the third year. It is customary to sow fall wheat after a summer fallow and to seed to clover. In such cases the clover crop would not be available to restore the humus which Mr. Elliott claims is destroyed until the third season after the field had been fallowed. It would be interesting to know how the humus would disappear from the soil while the land was fallow.—Editor.

J. G. Davidson, Collingwood, Ont., writes: "Please find enclosed \$1 in payment of my subscription to our great weekly farm journal. I am very sorry to see by the tag how very neglectful I have been, and hope you will let me off once more. I wish my words carried enough weight that I might say how much I value your incomparable journal."

## Returns from our Poultry Census

In February last, we asked our readers to give us some information as to the position occupied by poultry on the average Canadian farm. In order to obtain the information required, in the most concise form possible, we framed the following fourteen questions, all of which have been fully answered by a large number of people.

These replies show quite clearly that the majority of our farmers do not realize how very profitable the keeping of good poultry can be made.

1. *What is the number of acres in your farm?*

The number of acres of land owned by our correspondents who replied to this question is 8 547.

2. *How many hens do you keep?*

To this question six y-six farmers replied, showing a total number of 5,213 fowls kept amongst them, or an average of about seventy-nine each. This shows that less than two fowls per acre are kept on the average farm (strictly speaking 1.64).

3. *What breed or breeds of hens do you keep?*

The way this question is answered, shows that the farmers who answered it are paying some little attention to keeping pure bred stock, mongrels being decidedly in the minority. Plymouth Rocks head the list with 43 keepers. Leghorns are kept by eighteen farmers; mixed breeds by eleven; Wyandottes by seven; Brahmas by three; and Minorcas and Dorkings by one each.

4. *What do you feed them in winter? What in summer?*

The answers to the first question differ so widely as to be irreconcilable. Some people feed a warm mash and green bone in the morning, others at noon, and some few feed it at night. The great majority, however, feed only dry grain in winter; some even state that warm feed is bad for fowls and causes colds and roup; this certainly seems to be opposed to the experience of our most skillful feeders, nearly all of whom advocate the feeding of warm soft feed on winter mornings.

A very satisfactory ration for morning feeding in winter is equal parts by measure of bran, shorts and pea meal, with about two pounds of refuse meat or green bone for each 50 fowls, pour over this just sufficient warm water to make it crumbly, not wet. Vary the ingredients from time to time.

At about four o'clock in the afternoon feed all that the fowls will eat of barley, wheat or corn, in feeding this grain scatter it among straw, litter, chaff or dead leaves, anything that will partly hide it so that the birds require to scratch for it, the exercise they obtain in this way keeps them vigorous and healthy.

Keep before your fowls at all times during the winter clover hay, cabbage or roots, a stock of sharp gravel and crushed oyster and clam shells.

In summer, when the fowls have a wide range, and can obtain for themselves all the insects and nearly all vegetable food they require, it is only necessary to feed them a little grain in the evening, and even that may very well be omitted by farmers from the time harvest commences until the beginning of October, for at that season they should be able to obtain from the stubbles and the barn-yard all the grain they require.

5. *Have you a special poultry house?*

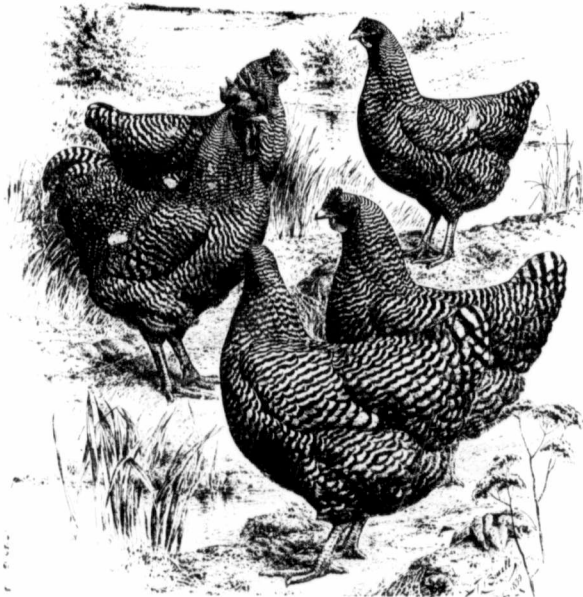
Very few farmers appear to have a special poultry house, the usual plan being to allow the fowls to roost in some part of a building where they will be out of the way. If, at the same

the scratching room on the ground floor and 5½ ft. higher a floor which affords a roosting room, nest boxes, etc. Each room is entered from an alley. The attic is divided into rooms for growing chicks."

This appears to be a convenient house in which to raise poultry on a large scale.

6. *What do you get per pair for chickens, alive or dressed, and at what season?*

In the answers to this question the greatest possible variation is shown, the price of a pair of fowls being governed by the demand at the local market, by the condition of the birds, and also to a certain extent by the season



Typical Barred Plymouth Rocks.

time they can be kept sufficiently warm to prevent their combs from freezing, that seems to be all that is considered necessary, and if proper attention is paid to cleanliness it seems to produce fair results.

A fair average poultry house is described by one correspondent as follows: "Have a frame poultry house, 16 x 20 x 9', double thickness of boards with tar paper between them. Building is well lighted by three large windows. Has two doors and a ground floor." The writer of the above farms one hundred acres of land, and keeps sixty Barred Plymouth Rock fowls.

Another correspondent who farms sixty-one acres of land, but carries three hundred fowls, which are paying well, describes his poultry house as "Built on the face of a hill facing south, 106 x 18. It contains 13 pens with two departments in each, viz.:

when sold. The only proper way for both consumer and producer is to sell by weight and then both parties will be likely to get fair value. When sold by weight the price paid per pound varies from five to twelve and a half cents, the figures most frequently given being seven or eight cents. When sold alive per pair the price runs from thirty five cents to one dollar and fifty cents, the exact average shown by the returns being seventy-one and one-third cents per pair. The range of prices paid for dressed fowls is somewhat lower, beginning at thirty-seven cents per pair and it never exceeds one dollar, the average price being just over sixty-six cents.

These averages are not nearly as high as they should be, the fault lying with the producer, for there is now a good demand at top figures for well-bred and well fed fowls if farmers will



only produce them; but scrubs in poultry as in other live stock are a drug in the market.

A number of reports were received from breeders of pure-bred stock whose fowls sold at prices ranging from one dollar to ten dollars each. These returns have not been taken into consideration in making the foregoing averages. The fact, however, that these gentlemen are making large profits out of this special line of poultry raising is a very healthy sign, the demand for these birds arising from those persons who are making intelligent efforts to improve their stock.

7. *What do you get per dozen for fresh eggs in the winter? In the summer?*

The summer price of eggs all over the country does not vary very much, the lowest point reached being ten cents and the highest eighteen, the average showing a little over thirteen cents. The winter price average is rather more than twenty four cents; at these figures egg production should be very profitable, if enough of them are obtained. This is a matter that depends largely upon the skill of the person in charge of the business. The essentials are a good breed of fowls, warm and clean housing, natural food and skilful treatment.

8. *Give an estimate of the number of eggs and chickens consumed by your household.*

As might be expected, there are but very few people who keep a correct account of the number of eggs and of fowls consumed in their own houses. We have, however, received forty-seven replies as to the number of eggs used, the total quantity being forty-six thousand nine hundred and sixty six eggs consumed by forty-seven families, which represents just about one thousand eggs to each family. The population of Canada now numbers considerably over five millions of people, many of whom are scattered about in places where eggs are scarce, but if we say that there are one million families in this country using eggs in the above proportion, we are within the mark, and that gives us a total consumption by our own people of one thousand millions of eggs per year, equal to eighty-three million three hundred and thirty-three thousand three hundred and thirty-three and one-third dozens, which, being roughly estimated at an average value of fifteen cents per dozen, amounts to the sum of twelve million five hundred thousand dollars.

The average number of fowls used by the farmers who have kept an account of them is twenty two pairs for each family during the year. At sixty-six cents per pair these are worth four-teen dollars and fifty-two cents.

9. *Do you sell your eggs to a collector, or on the market for cash, or dispose of them for groceries, etc.?*

The old system of trading at the country store, farm produce for goods, is evidently dying out, dying hard, perhaps, in some places, but still dying. Nearly every one of our cor-

respondents have answered this question, and the great majority state that they sell for cash. This is the proper and only system to adopt. Where the storekeeper will not purchase poultry products from farmers in an ordinary business way the farmers should ship out to the nearest town themselves.

10. *How frequently do you market your eggs?*

The majority of people market eggs about once a week in summer, or oftener if they have enough; in winter there appears to be no rule in the matter.

11. *About what does it cost you to keep a hen for a year?*

A great many farmers have answered this question, but if the replies given are taken from accounts kept by them, then there must be a great difference in the method of feeding adopted or in the quantity of grain, etc., fed. The lowest cost is placed at twenty-five cents, and the highest at one dollar and a quarter, the average, as shown by the whole return, being sixty-seven and one-ninth cents per head.

This is undoubtedly too low; much better results will be obtained by a rather more liberal expenditure.

12. *About what would be the average return from eggs and chickens in the year?*

On this question also our replies differ very widely, ranging from forty cents profit per head up to four dollars per head, the average return per head being one dollar and sixty seven cents per head. This is much less than it should be with economical and, at the same time, good business management.

13. *In your opinion is the raising of poultry for eggs and table use given the attention it deserves in your locality?*

Without one dissenting voice the answer is "No."

18. *What in your opinion is the reason farmers do not give this industry more attention?*

The general opinion seems to be that farmers require a good deal of education before they can be brought to see the profit there is in business-like poultry keeping. The industry is growing rapidly amongst the more advanced class of agriculturists, and a little further cultivation of the people will place the poultry among the most important branches of the farmers business.

### Some Notes on the Poultry Census.

In considering the averages shown by the returns of the poultry census it must be remembered that the great majority of our correspondents were farmers who give their poultry proper care and attention, and who take an interest in the business. The averages therefore are likely to be rather too high for the whole Dominion, or even for the Province of Ontario. In working out the averages, all returns

made by persons who devote themselves almost exclusively to poultry raising were excluded. These enquiries having been made for the purpose of ascertaining the position of the poultry industry as a branch of general farming only.

The specialist poultry breeders of this Province are doing very valuable work for the country, particularly in keeping up the standard of the utility breeds. In that respect they stand in the same relation to the ordinary farmer as do the breeders of Short-horn cattle, thorough bred horses, etc.

In going over the replies in detail it was quite evident that the men who fed liberally were the men who made the most profit. There are two cases that illustrate this point most emphatically:

A—owns 100 acres and has 60 hens. Cost of keep 40c. per hen. Return, \$1.40 per hen. Profit, \$1.00.

B—owns 61 acres and has 300 hens. Cost of keep 90c. per hen. Return, \$2.75 per hen. Profit, \$1.85.

A fair estimate of the profit to be made from farm poultry is obtained as follows. The only thing taken into consideration here being the cost of feed. The cost of labor, interest, etc., if any can be deducted from the balance shown in accordance with each person's case.

|   | Cr.         |
|---|-------------|
| 9 doz eggs at 15 cents                                    | \$1 35      |
| 5 pairs of chickens sold at 4 months at 75 cents per pair | 3 75        |
|   | —————\$5 10 |
|   | Dr.         |
| Feed for hen 1 year..                                     | 75          |
| Feed for 10 chicks 4 months                               | 2 20        |
|   | —————\$2 95 |
| Balance   | \$2 15      |

This is calculated on the assumption that a hen ought to lay ten doz. and one eggs in a year and raise ten chickens out of 13 eggs and by fair management this average should be reached every season and by special attention should be much exceeded.

Quite frequent complaints are made by farmers all over the country about the difficulty they have in marketing their poultry produce and other farm produce also, for full prices. In some places this difficulty has been overcome by co-operation in packing and shipping and no doubt in the co-operative system combined with the production of the best qualities of everything they turn out will be found the remedy for low prices. This co-operative system has already passed the experimental stage and should now be practised extensively in connection with cold storage. On this subject we expect to enlarge in an early issue.

No other stock will pay as poorly if neglected, or as well if extra care is taken of them as fowls. If you only half feed them you will certainly lose that much.

## Our Prize Essay Competition

In response to our offer of three prizes for the three best essays on "The breeding and feeding of chickens for table use," and on "the breeding and feeding of poultry for egg production," we have received a large number of good practical papers.

Nearly all the articles are carefully written and contain much valuable material; unfortunately we have been compelled to exclude from competition some of the very best of them because they exceed in length the 600 words to which writers were limited under our published conditions.

We hope shortly to be able to make use of some of these articles in our pages. In this issue, however, we shall only be able to produce the three successful essays in each class.

The essays in both these classes were submitted for judgment to a practical disinterested poultry man, who has, we believe, made his selection entirely from the farmer's standpoint.

### Breeding and Feeding of Poultry for Table Use.

#### First Prize Essay.

By S. Short, New Edinburgh, Ont.

To obtain large plump chicks for table use the first step is to obtain eggs from large healthy hens, weighing between  $5\frac{1}{2}$  to  $6\frac{1}{2}$  lbs. each; these should be mated to an active male weighing about 7 lbs. Mate fifteen of such hens to one male and keep them in a separate pen until eggs enough are secured for hatching purposes. Eggs are usually at the highest state of fertility after the middle of April, and chicks for the best results with the least care should be hatched between that date and the 24th May. After the 1st May the chicks can be put outside in coops, where they will thrive if properly fed. Hens can be used to hatch and care for the chicks, unless more than 100 is desired, and then an incubator and brooder is more convenient.

The best time to set the hens is in the evening, and if the eggs are fresh and all goes well the chicks will begin to arrive about midday of the 21st day. Leaving the chicks in the nest with the hen until next morning, when they can be taken out as soon as the air gets warm and placed in a coop with the mother on the sunny side of a building or board fence.

#### COOPS.

The coop, with the exception of the front, should be entirely closed, packing-cases or ordinary boxes with slats nailed over the opening will do; they may not be uniform, but they are cheap. Leave about two inches space between the slats to allow the chicks to run out and in and use dry earth, mixed with sulphur for the bottoms. Sulphur keeps the chick

free from lice. Cooping is better than allowing the chicks to range free with the hen, for she is very likely to take the flock out in the early morning in the wet grass, and many die from cold and exposure, and some fall a prey to hawks, weasels and other vermin.

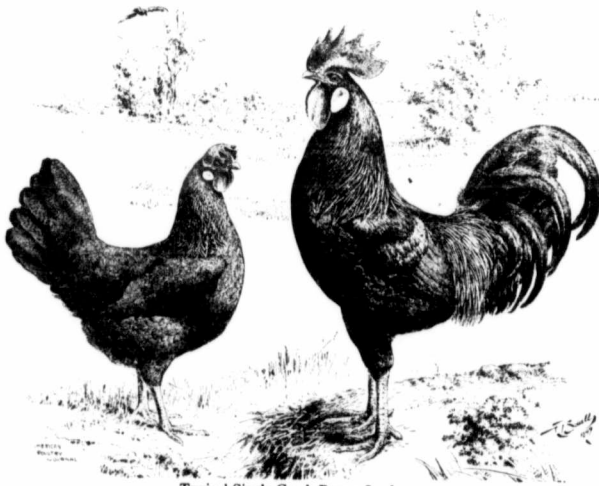
#### FEEDING.

The first few days feed every two hours hard-boiled eggs chopped fine and a few flakes of rolled oats. After that hard-boiled eggs, rolled oats, and cornmeal mixed with skim milk with a little chopped onion added is beneficial. Whole wheat for the last meal may be given after the first week. Chicks treated in this way should be ready to leave their mothers in about five weeks. After the mothers are taken away the chicks will always return to the coops for shelter during rain storms and at night. Keep the earth fresh in the bottom of the coops and don't forget the sulphur. Three times a day

[Mr. Short has omitted to state in his paper which breed or breeds of fowls he considers best adapted to the use of the Canadian farmer who wishes to breed and feed chickens for table use. He does state that the best hens to use "are those weighing from five and a half to six and a half pounds each," but there are several breeds of hens which readily attain that weight, but which are not considered to make good table birds. He also recommends the use of "an active male weighing about seven pounds."

This seems to be rather a light bird for either the Plymouth Rock or Wyandottes, both of which are usually looked upon as the best stock from which to raise chickens for table use.

In the paragraph headed "Coops," Mr. Short states, "Cooping is better than allowing the chicks to range free with the hen, for she is very likely to take the flock out in the early morning," etc.



Typical Single-Comb Brown Leghorns.

is often enough now for feeding. Give meal mixed with skim milk, table scraps, and at night wheat. At no time in their lives should the chicks be confined. Give them their liberty, and they will soon know where to forage for what they like best. Always see that they go to bed well-filled, for growing chicks must be well fed. After three months the largest chicks can be confined in coops or a small pen, and fattened for the table. Feed heavily fattening food for two weeks, and then they are ready for table. After one lot is disposed of another can be enclosed. A small room is best for fattening in the fall and early winter, because it can be darkened, except at feeding time, as fowl fatten quicker in the dark.

#### WATER.

Keep fresh, clean water, always accessible to chicks, in shallow pans to prevent drowning.

[Cooping on grass or on a board floor is generally safe enough, but hens cooped on loose earth will by scratching, and trampling kill a good many chickens during the first few days after they are hatched.]

#### Second Prize Essay.

By Mr. F. D. Awdie, Chespside, Ont.

Poultry raising as a branch of farming is making great strides in this country. Farmers are paying more attention to the raising of poultry for meat and egg production than ever before. The person who is going into the business of breeding and feeding chickens for table use will first see that he has suitable accommodation ready and then choose a breed. I maintain that it will be best for the average poultry-raiser to keep but one variety; as he will have a more uniform product to place on the

market. I prefer the Rocks or Wyandottes. They are good layers and excellent table fowls, are hardy, easily reared, and lay on flesh rapidly.

Care and judgment are needed in selecting the breeding pen. The successful chicken raiser must begin operations before the advent of the chickens. Hens that have been stunted by neglect, or have been debilitated by too frequent intermingling of blood will not lay eggs containing strong healthy germs. Breeding stock of both sexes should be hardy, fully matured and in good health.

The diet of breeding hens must receive careful attention, summer conditions must prevail as much as possible. During the warm season, hens supply themselves with worms, grubs and insects of various kinds, thus supplying the needed albumen which grains do not contain in sufficient quantities to produce eggs of strong vitality. They also obtain green food in the form of grass, at the same time obtaining exercise so essential to health, and production of healthy chickens. Green cut bone or meat, vegetables, clover hay, will help to supply the lack. Give mash once a day composed of the grains most abundant, with bran, equal measures of cut clover hay steamed, mixed to a crumbly condition. Feed what they will eat readily, never all they would eat. Give bone or meat every other day. Oats, wheat, sometimes millet thrown in the chaff on the floor to induce exercise is good. The main meal in the afternoon with clean water and grit always, should produce good results.

#### CARE OF CHICKENS.

Chicks need no food the first twenty-four hours. Feed bread steeped in fresh milk, press out the milk, crumble and feed sparingly the first few days, sometimes a little dry oat meal may be fed; with an occasional feed of hard boiled eggs, clean water and grit must be supplied at all times. When two weeks old feed cake made of cornmeal, oatmeal and bran, equal measures mixed with buttermilk, enough soda to make light, baked and fed dry. A little wheat and millet may now be fed, increasing the quantity until five weeks old, when, if chickens have free range, these grains may be the chief food, with a little meat occasionally, if not, green food must be supplied and exercise encouraged, not forgetting that from start to finish stock must be kept free from lice. The broiler season being about over before the average farmer has his chickens nearly ready, he must carry them on to the roasting stage, keeping them growing rapidly. When they weigh from six to eight pounds per pair confine them in small pens, or what is better, crates; as they will be easier kept clean, and the meat will be more juicy and tender. Keep in mind the demands of the market which you supply; if the British, feed finely ground oats mixed with milk, preferably sour, being careful not to overfeed; or if the market demands yellow meat feed ground corn, with an occa-

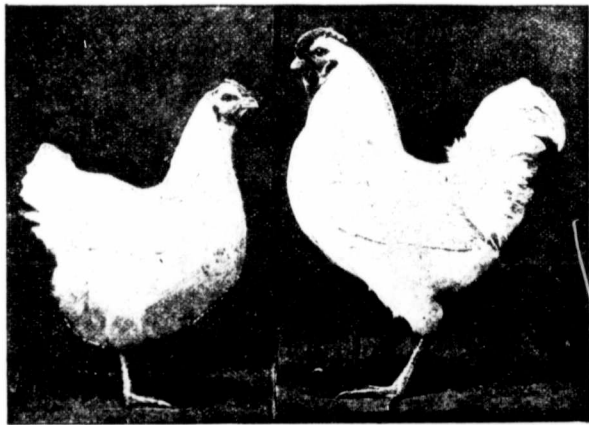
sional feed of boiled potatoes. Take a farm paper, remembering that the wise man profits by the experience of others. And that eternal vigilance is the price of success.

[Mr. Awde's essay, under the heading "Care of Chickens," after saying "chicks need no food the first twenty four hours," says: "Feed bread steeped in fresh milk, press out the milk, crumble, and feed sparingly the first few days, etc." If Mr. Awde has been successful in raising chickens on the soft food he there describes his success has been exceptional. Under no circumstances should bread moistened in any way be fed to young poultry. The safest and simplest food to give is rolled oats, this alone is quite sufficient for the first ten days, a little meat or hard boiled egg added may perhaps promote their growth and can do no harm; after the chicks are ten days old they may be fed with wheat screenings, millet or any small grain.]

man. He must be progressive and watch every detail closely.

#### CARE OF THE CHICKS.

When the chickens come leave them with the hen for twenty four hours without feed. As there is no hard and fast rule for feeding chickens, I will only endeavor in a general way to say how best to feed them from the time they are hatched till ready for the table. A good thing to start the little chickens on is oatmeal and corn bread or a hard boiled egg, chopped very fine, may be given, with a little grit added. Feed little and often for the first two or three weeks; then, if they are outside, feed three or four times a day. If they can get lots of green food and insects it will not be necessary to feed the former or meat, but if they are inside they must be fed both. Follow nature as close as possible, and you will have the best success. See that



A Pair of Typical White Wyandottes.

#### Third Prize Essay.

By Mary White Bertram, Vine Mount, Ont.

As horses and cattle are bred for especial purposes so do we breed fowls for whatever we want them. We have in chickens three classes, viz: Table fowls, egg producers, and fancy fowls. It is of the former, and how best to produce and feed them, I intend writing. The principal thing in breeding for table use is to breed only from well matured one or two year-old hens which have been mated with a pure-bred male with plenty of size and vigor. By mating about fifteen hens to a rooster we may expect to have good, strong, healthy chicks, without which we cannot expect to have them reach maturity at an early age. Select a breed of fowls that are known to be rapid flesh formers. Plymouth Rocks and Wyandottes are both noted for this, and make about the best all-round chickens or farmers to keep. After hatching the chickens we must never let them stop growing but keep pushing them right along. In the poultry business everything depends on he

they are at all times housed in a clean, dry place, and be sure that they never get chilled. Oats, wheat and corn are good, but they must be cracked or ground. Give them skimmed milk if you have it, and clean water at all times. To produce broilers we must feed grain, vegetable and animal foods. For the market it is the same, but before killing it would be necessary to shut them up in a darkened pen or in coops for say four or five weeks, and feed them in a V-shaped trough, on food the same as they feed at the fattening stations all over the country, viz: 2 parts finely-ground oat meal; 1 part finely-ground barley-meal; 1 part finely-ground corn-meal; mixing this with skim milk so as not to have it too sloppy. At the end of two weeks add a little beef suet or tallow, in the proportion of one ounce to every four birds. Keep the coops or pens perfectly clean, with water and grit supplied at all times. When we are ready to kill them it will depend whether we want them for our own use or for the British market. For the former we usually bleed in the mouth; for the

latter we must dislocate the neck. They should be starved for twenty-four hours before being killed, so as to be sure that the crop will be empty of feed. This is very important, as food left in the crop is liable to ferment and spoil the bird. Pick while still warm, taking care not to tear it, and have it to look as inviting as possible. Chickens of this kind will always command the highest price.

[This is a well-written essay, though the writer has devoted too much space to mere generalities, which could have been better used in giving details of management.]

## Breeding and Feeding of Poultry for Egg Production.

### First Prize Essay.

R. C. Allan, Cobourg, Ont.

In selecting a breed solely for egg production the White Leghorns excel all others. Hardy, active, vigorous, and non-setters, they combine all the excellencies of the other breeds as layers. Other varieties of Leghorns, Minorcas, Wyandottes, and Rocks follow closely.

If a flock must be started procure eggs or birds from some reliable breeder of a good laying strain of the breed preferred. If non-setters are kept, artificial hatching and rearing must be resorted to. Pullets must be hatched in March and April to make good winter layers, and it is impossible to obtain them that early except by using an incubator.

The young chicks must be generously and judiciously fed and cared for. Dry comfortable quarters, clean water to drink, and plenty of range for exercise are necessary. If insect food is not abundant, meat and ground bone hasten the development. Millet seed is a most excellent food. Provide a variety of grains, as cracked wheat and corn, oatmeal, etc. Keep the pullet growing from the time she steps out of the shell till she deposits her first egg in the nest. Remove cockerels as soon as they become troublesome. Cull young stock closely. Reject immature specimens and all not up to standard size. Put pullets into winter quarters at least a month before winter begins.

The house should be thoroughly wind and rain proof, and should allow at least six square feet to each fowl. It should be well lighted and easily ventilated in mild weather.

Plenty of litter must be kept on the floors, and all whole grain thrown therein to compel the needful exercise. Provide dust boxes filled with coal-ashes or road dust, to which a small quantity of lice killer, sifted with coarse sand to aid in equal distribution, may be added. When this becomes damp sprinkle it over roosts and dropping boards. It will effectually keep down vermin. Nest-boxes, roosts, and dropping-boards should be painted several times a year with a liquid lice-killer, and house kept

clean with whitewash to which a little crude carbolic acid is added. Grit, lime, and abundance of clean water must not be forgotten.

A full egg-producing ration should be given as soon as the fowl are settled in winter quarters. Cut clover (cured as green as possible), mangolds and cabbages for green food; wheat, barley, corn buckwheat in the order named give good results. Corn and buckwheat are too fattening for summer food. Bran, canelle, pea, oat and corn meals are used to mix the mash which consists of steamed clover with enough of the ground mixture to make a warm, crumbly mass.

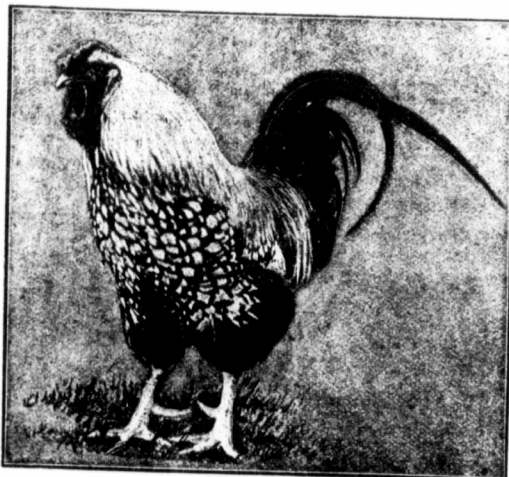
All that the hens will eat up quickly may be given at a feed. Mangolds or cabbages should be supplied every day in winter. Meat or ground green bone at least every other day, and on alternate days a feed of boiled grain or vegetables. A few handfuls of millet

ence that the methods he adopts are suited to his circumstances.

If these methods were generally put into practice by the poultry keepers throughout the country the business would be made much more profitable than it now is.

Mr. Allan states that "For egg production the White Leghorns excel all others," etc. This opinion is not confirmed by the results of the many egg laying competitions that have been held in different parts of the world, but it may be correct so far as Mr. Allan's experience goes. It is generally understood now, that good laying is rather a matter of strain than of breed, and that the production of a first-class laying strain is possible from any good breed, by scientific selection.

Mr. Allan states further that "Pullets must be hatched in March and April to make good winter layers, and



A Typical Silver-Laced Wyandotte.

seed or grain in the litter twice a day induces exercise. A full feed of grain is given at night. Corn on the cob, thoroughly warmed, is much relished in very cold weather. To prevent egg-eating and supply lime save all eggshells from the house during the year, dry and break fine, and feed in grit boxes during the winter. This ration has given an average of 16½ dozen per year from 200 White Leghorns. The routine of feeding is varied, but no slipshod methods of feeding or cleaning is tolerated. Fowls are kept quiet and contented.

In February select breeding stock; choose hens that are active, vigorous, that produce large eggs, and are laying when selected. Keep in view standard requirements of your breed. Mate with male birds from good laying strain also. Keep no hens over two and a half years old.

[This is an admirable essay, concise and practical. The writer expresses his opinions confidently, probably because he has found from experi-

it is impossible to obtain them that early except by using an incubator." It is not absolutely essential that pullets to lay in winter should be hatched as early as March and April. May hatched pullets if well handled will lay in November, and there is usually no difficulty in having these pullets hatched under hens if that method is preferred.]

### Second Prize Essay.

By John Newman, Engleside Farm, Brockville, Ont.

At almost any season there is good demand for strictly fresh laid eggs of desirable quality.

The color of the shell is determined in the selection of the breed, the shade of the yolk and the choicest flavor, by food and surroundings. Every egg farmer should study the best market open to him and endeavor to supply its particular need. If his eggs are for the English market he should choose his breed from the Minorcas, Andalusians or Leghorns, as they are very prolific layers of white eggs. They



are also non-setters, thus there is nothing to interfere with the continuous production of eggs, as the hens lose no time in getting broody.

The Canadian markets, however, prefer large brown eggs. Plymouth Rocks and Wyandottes are hardy fowls and good layers of brown eggs. Some suitable breed should be selected and bred exclusively, as eggs uniform in color and size will surely bring most money.

In order that the quality of eggs produced be of high character the surroundings must be kept clean and free from offensive smells. Give no food of bad flavor or strong odor, or the egg will be objectionable.

It is no trouble to get eggs in May or June from hens that have freedom and find enough to eat. The successful poulterer should study these conditions, and in the best possible manner make them continue throughout the year. Notice that they are not crowded, have plenty of exercise, are not too cold, have a great variety of food, plenty of sunlight, dust baths, grit and drinking water.

To produce eggs throughout the year it is necessary to have young hens or fully matured pullets before the beginning of winter. Prepare to supply June conditions in the fall and winter by making a sheltered pen, warm, free from dampness and draft, and having a good supply of windows to allow the sunshine to enter from the south. Arrange roosts and dropping boards so that they may easily be kept clean. Place lots of gravel in the bottom for grit, and cover with cut straw, so the hens will be forced to work to find their food. Place a box in the corner with dry road dust and ashes for a dust bath. Do not place more than twenty five hens in one place. It is better to isolate the cocks until breeding season.

In feeding the hens never gorge them but feed little and often, and endeavor as much as possible to keep them busy. Vary the food as much as possible. Early in the morning feed a little warm, soft food composed of bran and finely ground oats mixed with skim-milk and cut clover steamed. Next scatter a few handfuls of small grain, such as small wheat or buckwheat, in the litter for them to work for. Supply a warm drink of water or skim milk. Occasionally hang a head of cabbage or mangold on a suspended wire just high enough so that the birds will have to jump for it. This affords exercise and is appetizing to the fowl. Feed about one ounce per hen of green cut bone and meat. These are much relished and particularly advantageous, as they not only furnish the nitrogenous matter and phosphoric acid for the egg but also the calcareous matter for the shell. A good feed of warm corn or barley the last thing at night will conclude their bill of fare. The degree of success will be measured by the way we study the business, love it and practice it.

[Mr. Newman's article is a good state-

ment of the general rules to be followed for the successful production of eggs. But he does not very clearly explain the merits of the various breeds of fowls, even according to his own classification. He says, "If his eggs are for the English market he should choose his breed from the Minorcas, Andalusians, or Leghorns, as they are very prolific layers of white eggs. They are also non-setters, thus there is nothing to interfere with the continuous production of eggs, as the hens lose no time in getting broody." Does Mr. Newman wish us to infer from what he says that these breeds are unceasing layers? Of course, every poultryman is quite well aware that such is not the fact, but the statement as it stands in Mr. Newman's article might mislead a beginner.]

### Third Prize Essay.

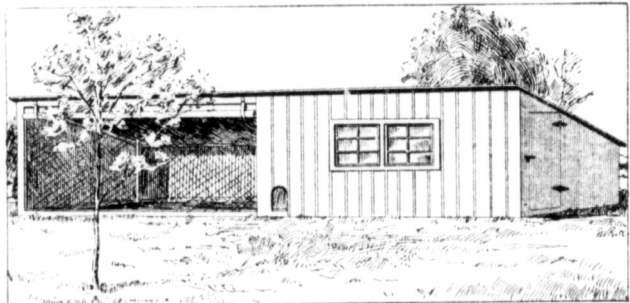
By Georgina McGill, Eramosa, Ont.

There is nothing on the farm that will mature so quickly, and become productive, as the hen, and after she becomes productive there is nothing that will give such a large return for the amount of capital expended. To

some reliable breeder, to keep up the laying stock. Hens are seldom profitable after they are two or three years old. If a male is kept it is better to keep him separate, and when fertile eggs are desired he can be mated with a select breeding stock. They should be mated at least ten days before eggs are wanted for hatching. To get eggs in winter hatch the chickens early.

### FEED.

The feeding of hens depends in a measure on the kind of breed. That which would keep one breed in proper condition, would make another breed too fat, so each person must judge for themselves what will best suit the kind they are keeping. Nearly everyone who has had experience in the business advocates a warm mash in the morning. Of grains, wheat, barley, and oats are the best (chiefly wheat). Roots are a good food. In winter lime should be supplied for the formation of the egg shell, and also grit should be supplied to aid in digestion. They should be supplied at all times with plenty of fresh water. The largest ingredients in eggs are lime, nitrogen, and phosphoric acid. Green bones



A Cheap and Convenient Poultry House with Scratching Shed.

have success you must have good stock, a warm house, and good-sized runs, the right kind of feed, and brains to manage them.

### THE HOUSE.

The house should be large enough so that the fowls will not be crowded in the least, and warm enough to keep the combs of the fowls from getting frozen. In winter a good plan to give the fowls exercise is to have an ample scratch-shed, where the grain may be thrown among straw.

### THE STOCK.

For egg production the Leghorn is a typical hen. There are several other good egg producers also, so all may suit their fancy. It has been found that while some breeds will, on the average, lay more eggs per hen than some other breed, yet there is as great a difference between individual fowls of the same breed as there is between the different breeds. All agree that to a certain extent "like produces like," therefore to secure good laying fowls you must breed from a good laying strain. If no male is kept, eggs for setting will have to be procured from

when cut up are excellent egg-making material. They are rich in albumen, phosphate of lime, and phosphoric acid, which go to make egg and shell. Clover is a splendid food for hens, especially in winter. It contains excellent material for the nourishment of the bird. Compounds of lime are abundant, such as are required for shell formation, and the hens relish it at all seasons. The clover is prepared by chopping it fine, putting it in a vessel containing boiling water, covering and allowing it to steam all day. Raw meat given occasionally will promote vigor and egg-production in winter.

"We both have to scratch for a living," remarked the old hen to the editor. He told her to "shear off," and she followed his style with a "cut, cut, to day—cut." This may not be an eggsact translation, but he knew very well what her cackel-lay tions were when she laid the matter before him, and that helped him to hatch some new ideas. She was on nest enough to set his mind at rest before he flew into a passion. Henry Coxcomb,



## Practical Pointers on Breeding Poultry

By W. R. Graham, B.S.A., Manager Poultry Department, Ontario Agricultural College

Like breeding other kinds of live stock, there are certain conformations that are desirable, and are sought after more or less, and there are other shapes which are not desirable.

It is not the purpose of this article to go into the detail of breeding fowls,

This is the cut of a Barred Rock cockerel, which has a very desirable conformation. You will notice that the beak (bill) is short and stout, being well curved, also that the head is moderate in width and the eye bright. These are all indications of constitution. Now compare this head with that in cut No. 2. Here you see a long, narrow head, a very long beak, and a sluggish eye; these are not desirable points. We naturally expect this bird to be lacking in vigour, constitution, etc., which is actually the case.

Again, compare the two birds as to width of breast. We like a wide breast, so as to get plenty of meat on each side of the breast bone; also we must have lung and heart capacity. This, of course, brings a wide back. No. 1 has a fine wide breast, which is also full or prominent. No. 2 is rather narrow in the breast. No. 1 is also deeper. Now if you were so situated as to be able to examine these birds

commonly wide to scale equal to a bird with a medium length of back. In size of thigh No. 1 is much larger, and is firmer in the flesh. While the thigh is not the most desirable portion of the bird, yet I like to see a bird with good muscle.

In judging birds from a market or utility standpoint one must bear in



Cut No. 1.

but more particularly to try and show that there are vast differences in the shape of different representatives of the same breed; some of which we consider desirable, while others are not what one would wish to use in a breeding pen.

From observation and study we have learned that birds of a certain



Cut No. 2.

type or shape have usually a good constitution, and have the ability to make good use of the food, while other birds representing other types are more or less lacking in vigor and in feeding qualifications.

Take, for example, cut No. 1.



Cut No. 3.

critically you would find No. 1 had a very long breast-bone extending well back, also that there was exceptional width between the legs, and, further, that he stood straight upon his legs, the feet being firmly placed upon the ground. No. 2 is very narrow between the legs; the legs also bow toward each other at the joints, and, further, he does not stand straight upon his legs, or, in other words, he is sickle-hocked. His breast-bone is medium in length. No. 1 has a fair size bone. No. 2 is a little heavier in bone. In width of back No. 1 is far superior to No. 2. In length of back No. 2 has a slight advantage. Here is the weakest point in No. 1, in that he lacks length of back. A very long back is *not all* desirable; a short back is much better, but a medium length of back is what is wanted. This is necessary to get weight. A short bird must be un-

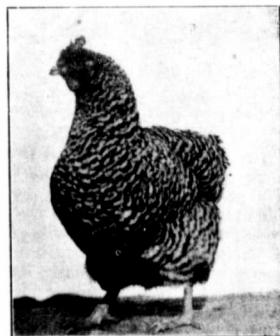


Cut No. 4.

mind that the breast meat is the most valuable. A bird possessing length, width, and depth is the one the buyer is looking for. A wide back is pleasing to the eyes, and is also some indication as to the under line, and, further, as to constitution.

I may add that cockerel No. 1 is the best type of a market bird in his class that I have seen for some time, being extra strong in breast points.

Compare once more the cuts of the hens. No. 3 is a long, narrow hen



Cut No. 5.

with legs that bow towards each other. She is an indifferent layer and feeder. She has a long neck, a narrow but a moderate beak and eye. She is not constitutionally strong, and has always been somewhat lacking in vigor.

No. 4 is not represented to advantage. She is a fine type in every re-

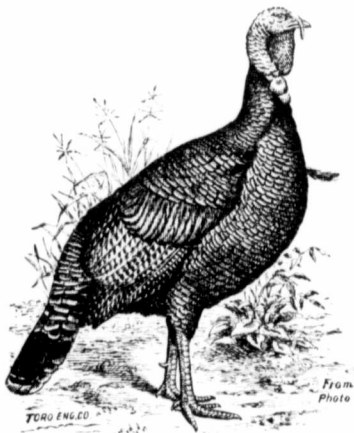
spect, having plenty of weight, is active, bright, and is a fairly good layer. This hen was pronounced by one of the most expert judges in Ontario to be of exceptional fine Rock shape.

In No. 5 we have a rare bird. This hen as a pullet produced 183 eggs in nine months (no record kept earlier in the season), and is further a fine market bird. Note the stout beak, the active eye, the prominent breast, possessing plenty of width and depth, also the width between the legs. The color of this hen is also very good from a show standpoint. She lacks in bone, also is a little short in the leg for a Plymouth Rock. This is one of the few hens that we can show to advantage to the farmer, the market poultryman, and to the fancier, and have all very well pleased.

### Breeding and Feeding Turkeys

By W. J. Bell, Angus, Ont.

It is now only an exceptional farmer who does not raise turkeys for market. This has been brought about partly by the demand for them in England and partly by a better understanding of the best methods of raising them.



Bronze Turkey Cock.

A great prize winner in Ireland. Bred by W. J. Bell, Angus, Ont.

I believe the English market is the more profitable one to "cater to." That market requires the very largest and heaviest young birds, and it is an undisputed fact that a large turkey can be produced just as cheaply as a small one. Besides they are taken away just when the weather turns decidedly cold (about Dec. 1st), when a drop of a few pounds each in weight occurs.

I have found it almost impossible to add weight to my birds during the month of December. If it is unusually mild they will do well, but if otherwise they will stay at what they were. The price may not seem large per lb., but when one takes into consideration the extra month's care and feed, I think it folly to hold birds for the Christmas and New Year's market.

A mistake a great many farmers make is in getting male birds from different breeders every year. They seem to have a great dread of inbreeding in any form. Now, if I were breeding for market I would purchase a male bird from some reliable breeder who practiced—not altogether inbreeding—but "line-breeding," one who could point back to large choice birds produced year after year, and thereby prove his ability to properly mate them for good results.

Turkeys are by nature wild, and the more freedom they have the better. However, I don't like to see the breeding stock roosting on the barn or trees all winter, but would prefer to have them there rather than be compelled to roost in a crowded and warm hen-house. A large shed open to the south or east is a good place, or any large old building not too warm. They should be given a little food once per day—a variety such as barley, oats, peas and wheat. Let them have free range about the buildings in day time.

About the 1st of April, it is a good plan to place large boxes and barrels in the corners of buildings or any safe place you would like the hen to lay in. All nests should be fixed so that they could be well closed when the young are due to hatch; if left open the first comers will crawl out of the nest and cause the mother to leave before all are hatched. As the hen lays I take the eggs from the nest and place them in bran, kept in a moderately cool place. Turn eggs occasionally. When the hen wants to set I give the eggs to her—on an average about 15 eggs. Have had 20 hatch successfully.

Another instance where some make a mistake, especially in northern Ontario, is in breaking the hen off hatching and getting her to lay a second batch. The eggs are then set under a common hen, and I don't believe they ever do as well as under a turkey hen, and late July hatches are generally sickly and unable to stand the early cold. I would advise all to be content with first clutch.

When setting the hen, dust the nest well with fresh insect powder, and three or four days before the young turkeys are due shake powder over the hen on the nest. I wouldn't disturb her too much in doing so. I let the hen go on and off the nest when she pleases while hatching, and when I notice her off go to the nest to see if any eggs are broken, and in case there are any I wash the balance in luke warm water and put fresh chaff in nest.

Leave the young in the nest twenty-four hours after they commence to hatch, and then remove them to a very large box if weather is cold and teach them to eat. Keep the hen with them in a box, and keep them there for one or two days, depending on the weather, but in no case longer than two days. If the weather is warm I place the young turkeys at once in a A-shaped coop on the ground. Keep plenty of fine gravel around coops and

a dry place for them to dust in. Don't neglect to move the coop the breadth of itself every day. The coop confines the hen, and the young run in and out through lath front.

### FEEDING THE POULTS.

There are as many plans of feeding young turkeys as there are days in the year. Some claim that to feed five times per day will derange the system and cause bowel trouble.

It may be the case with some flocks, but I will guarantee that it will not do so when shorts are mixed with milk are fed. The first day the poults are fed stale bread soaked in skim milk, and the second day the bread is gradually replaced by shorts which are mixed very damp but not sticky. For the first five weeks they are fed five times per day—out of the hand—all they will eat and the balance is fed to the chickens, so that the food is freshly mixed every time. I don't like them to get sour, fermented food. Onion tops and dandelion leaves cut into their food frequently is good, and plenty of fresh water in clean utensils should be kept always before them, also some skim milk or buttermilk to drink every day. This is my treatment for the first four or five weeks.

I then give the hen her liberty and feed the shorts three times per day, but change the night feed to wheat after harvest, and about this time find that the young birds will do with a feed of shorts in the morning. They do not eat much wheat either, but I like to offer it to them in case they fail to get sufficient on range.

I allow all to roost on the fence, but contemplate building a high fence around where they roost to keep them near the house in the early morning, as I have lost a great many by foxes getting them a short distance from the buildings.

About the middle of October a great many again make a mistake. Their turkeys have been doing fine probably without any food, but at this time the supply on range drops off and the turkeys go back. They should be liberally fed at this time with corn, peas or wheat. There is no corn grown in this section for the grain, so I find wheat the next best substitute.

Peas should be better than wheat for fattening, but my turkeys refuse the peas if they can get wheat, probably because they have become accustomed to it as a night food.

I think there is a wrong impression about the voracious appetite of turkeys. If you feed them where from 50 to 100 hens have the privilege of helping them to "clean up" what you throw down I will admit it takes a lot to satisfy them. But feed them by themselves "regularly" and you will surely change your opinion. I would not advise penning the birds up to get more weight, as I find that two or three days confinement in a house is sufficient to cause a great loss of appetite and a consequent stand-still in growth or weight. With a good strain, and this plan of feeding, it is an annual

occurrence to have the largest birds of the flock, 25 lbs. for gobblers and 16 lbs. for hens at six months, and a fair average for a whole flock, 22 lbs. and 14 lbs.

I know plenty of farmers who are now making from \$50 to \$75 per annum out of their turkeys, and with the exception of a little care for the first five weeks, they are practically no bother whatever. It must be remembered that turkeys command the highest price of any meat produced by the farmer.

### Rearing Ducks for Market.

Ten or fifteen years ago duck raising in Canada, perhaps, was carried on more extensively than it is to-day. The special attention that has been given during the past few years to rearing and fattening chickens for the English market has served to detract somewhat from the rearing of other classes of poultry. Duck-raising if given the proper attention can, however, be made profitable on the farm. Ducks are easily reared, are seldom the victims of disease, and when once hatched their growth and development is rapid.

The following extracts from a paper by C. C. Richards, of Iowa, though adapted more especially for American conditions, will be found of value to Canadians interested in the raising of ducks. The writer is evidently a breeder on a large scale, and has made a close study of the subject.

Young ducks at ten weeks of age will, if properly fed and cared for, weigh from five to six pounds each, and during the early spring months the price of a prime young duck for market purposes is 15 to 20 cents per pound. We know of no other way in which so great a profit can be developed in the same length of time.

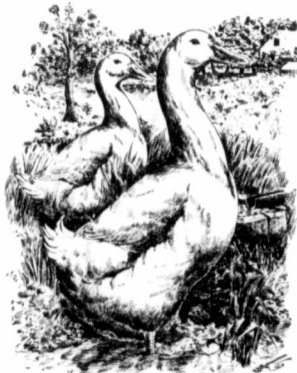
The breeding ducks usually commence laying by the first of January, and continue until July, laying during that time from 120 to 140 eggs each.

They are as a rule very timid, but domestic in their habits, and seldom wander far from their sleeping quarters if given their liberty. They are extremely hardy, easy to raise, are not easily affected by the cold, and it is a common sight to see a flock of ducks out of doors during the coldest days of winter. One great advantage of the Pekin is their snow white plumage, as they not only dress better and do not show the objectionable dark pin feathers, but their feathers readily command 50 to 60 cents per pound on the market.

It is a natural instinct of ducks to associate in large numbers, hence a flock of one thousand can be reared with less trouble and more profit than a like number of chickens; they require less room, and can be easily fattened for the market in from ten to fourteen days. Everything being taken into consideration, they are the ideal market fowl, and we know from personal experience that they are more profitable than either broilers, eggs, or market chickens.

Ducks do not, as many suppose, require a pond and do equally as well without it, but they should have plenty of good, fresh drinking water. They will thrive and produce fertile eggs, and as many when confined in yards as they do when given their liberty. Unlike the hen, they are continually on the move, and do not lack for exercise, which is one of the great essentials for the production of strong, fertile eggs. For matured ducks a thirty-inch fence is sufficient to hold them, while a twelve-inch board will confine the young stock.

During the month of July, after the ducks are through laying and begin to molt, they should be turned out to pasture where they can procure all the grass they want. The pasture, if not supplied with natural shade, should be furnished with an artificial one, and this is very important, as nothing will so quickly debilitate a duck as hot weather. They should at this time be fed twice a day on a mixture composed of two-thirds wheat bran and one-third cornmeal or ground oats and 5 per cent. of grit. The best plan is to keep them fed a trifle short, in order



Pekin Ducks.

to force them to forage as much as possible; they will be better off for it. Great care should be used that they are supplied with all the water they wish to drink. Young ducks which are to be reserved for breeding purposes should be given the same care after they are ten weeks old as that given the matured stock.

About November, according to the season, the methods should be changed entirely, the yards adjoining the breeding houses should have been sown with rye, which is now a heavy mat of green. This is done for two reasons, first to purify the ground, and in the second place to supply the ducks with green food during the fall and early winter months. At this time they should be sorted, and twenty ducks placed in each pen, using one drake to four ducks. After being thus mated, they should be fed twice a day (morning and evening) all they will eat up clean of equal parts of wheat, bran and cornmeal, to which is added 20 per cent. of ground oats, 10 per cent. beef scraps and 5 per cent. grit. At least 25 per cent. of this feed should consist of

either boiled turnips, beets, potatoes, or cut clover. After the rye in the outside run is exhausted, they should be fed at noon all of the refuse cabbage or green stuff they will eat. Grit and oyster shells should be kept by them at all times. In watering ducks great care should be used, as they will waste time as much as they drink, and very often they do not get as much as they want, or really need. A good plan is to always have the watering vessels full, after all of the ducks have finished drinking; you are then sure at least that they have had enough. After the weather becomes extremely cold their pens should be bedded with straw. With this treatment the ducks should begin laying in about four weeks, and by the first of January all should be laying regularly. The first eggs are seldom strong in fertility, but they soon come up to a high standard. As the season advances, the cornmeal and animal food should be increased gradually. After being fed in the evening they should be shut in the house and confined until eight or nine o'clock the following morning. By that time they will all have laid, and should then be given the liberty of the yards. In going among the breeding ducks care should be used not to frighten them, and always avoid, if possible, going near them after dark, as continual agitation is not conducive to heavy egg production.

### HOW TO CARE FOR DUCKLINGS.

After the ducklings are hatched they should remain in the incubator for twenty-four hours, or until the twenty-ninth day. They should then be removed and placed in brooders, about one hundred in each, after which they are fed and watered for the first time. The first few days they should be guarded very closely, and do not allow them to become wet or chilled, and after feeding see that all get back into the brooder. In the course of a few days they become accustomed to their surroundings, and give no more trouble in this respect. Their food during the first week consists of equal parts of cornmeal and wheat bran, mixed to a crumbly mass with either water, whole milk or skimmed milk. They should be fed this mixture every two hours what they will eat up clean, no more, no less. During the following five weeks they should be fed four times daily on equal parts of wheat bran, cornmeal and ground oat feed, 5 per cent. beef meal, 5 per cent. grit and some green stuff, such as cut rye, chopped cabbage, etc.

The seventh and eighth weeks they should be fed three times daily with equal parts of cornmeal and wheat, 10 per cent. beef scraps, 5 per cent. grit and plenty of green stuff. From this time forward until the tenth week they should be fed three times daily two-thirds cornmeal and one-third wheat bran, 10 per cent. beef scraps, 5 per cent. grit and very little green stuff. At this age with the above method of feeding the young ducks should weigh from five to six pounds each, and be ready for the market.

# The Agricultural Gazette

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

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

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

### BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale, are published once a month. Over 12,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

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

A. F. WARRAVILLE, Secretary.  
Parliament Buildings, Toronto, Ont.

## The Ottawa Sale Most Satisfactory.

The Provincial Auction Sale held at Ottawa proved even more satisfactory than that at Guelph, especially as regards Shorthorns. Triumph = 34064 =, contributed by Hon. Jno. Dryden, sold to the P. E. I. Government for \$505, and they also bought Jeffrey Bros.' Patrician = 36391 =, for \$230. \$225 was paid for W. Ormiston's Roan Lad = 36205 =. The Shorthorn females sold remarkably well. Col. Todd, Kalamazoo, bought several head, the highest priced female bringing \$210. As at Guelph, the dairy breeds dragged somewhat, but the swine fetched good prices.

## Average Prices at the Guelph Sale.

The average prices realized at the Provincial Auction Sale at Guelph were as follows:

Beef breeds, bulls, \$84.85; females, \$90.00

Dairy breeds, bulls, \$43; females, \$50.20.

Swine, boars, \$9.90; sows, \$29.77.

## Annual Meeting of the Dominion Cattle Breeders' Association.

The sixth annual meeting of the Dominion Cattle Breeders' Association was held in the City Hall, Guelph, February 28, 1901, at 4 p.m., the president, Mr. Richard Gibson, Delaware, in the chair.

On motion, the minutes of last meeting were taken as read.

John Bright moved, seconded by Major McGillivray, "that the report of the secretary be taken as read." Carried.

The financial statement was read by the secretary-treasurer and adopted.

## PRESIDENT'S ADDRESS.

Mr. Gibson's address was as follows: Directors and members of the Dominion Cattle Breeders' Association: Allow me to welcome you to our meeting, and while I do so it is with mingled feelings of pleasure, anticipation and regret.

Pleasure, inasmuch as I am allowed to announce through the secretary, the wonderful increase of membership, and prosperity ensuing therefrom. I shall not occupy your time anticipating that report; it is simply wonderful in its figures, and we trust the results may be the same, and that every member will say from conviction, and from the bottom of his heart, "Twas a good day when I joined." What are we here for? To legislate in a legitimate manner for the best interests of cattle of large or small degree, for dairy as well as for beef. It is the only legitimate combine with which I am acquainted, that I have read, dreamed, or heard of, that was not paid for services, or did not water its stock from a financial point of view. Of course we all water ours, and it has been cruelly said that the dairyman's best cow was the one with a stiff tail. When I was young I was a dairyman myself, and I will not lie. I will admit nothing.

But, what are we here for? At the late Cattle Breeders' meeting at Salt Lake City, Utah, President Springer, in his inaugural, said, as quoted: "We represent on this platform and under this roof, three hundred billions of money—more than the produce of all the mines of coal, iron, gold or precious stones, of all the looms, of all the produce of the forests, and of the fisheries, and if we make our wants known and don't have our demands satisfied, we will change the policy of any administration, or can upset any party." I am not repeating these words to inflame your minds. I am not doing it as a menace to any, but

I do wish to congratulate you all upon the powerful weapon the weakest of us hold when in combination: "With unity there is strength." Let us all, then, meet harmoniously, leave our petty troubles to a lower court of adjudication, but when we meet at our annual feast let harmony prevail; let all work for the good of the whole. Why do I say these words? It seems to me the time has come when the stock breeders' interests can only be recognized and protected by combination. We know of the Standard Oil Company, of the steel trust (I won't say it is not well named), of trusts of all kinds, of maids, married women and widows. Then let every stock breeder join our association. We don't want him to pool his stock. We don't offer gold mine shares at 10 cents each, but we do ask him to join our association, and if trouble comes between him and railways or other sources, let us know.

Anticipation was my second theme. I don't know that I have struck the right word. Old Jorrocks says: "Anticipation is hunting the fox in your dreams and throwing your wife to the hounds." My anticipations in my dreams probably are: That there will be no foolish political, criss-cross customs between ourselves and the people over the borders; that the farmers and stock breeders, the veterinary surgeons and Boards of Health, may lie down together, and a little child may take its natural sustenance from the cow, without being frightened thereby; that disease and death-lurking germs may not be anticipated until diagnosed. I had anticipated making a statement at this meeting that free intercourse between Canada and the United States was assured. This anticipation is, I trust, only in abeyance but a few days.

My regret is that I have to announce to you the death of my predecessor, of which you are all aware. I venture to say there is not a man within reach of my voice but feels as I do the loss of a friend. A good man has left our ranks. I refer to the late John I. Hobson. He was a man I loved, strong in his convictions; his very opposition only brought out those qualities which every man he opposed the more appreciated. He was manly, firm, and true to his opinions. And may I add that I have never felt his absence more than at the present time. Will you allow me to suggest that a committee be appointed to draft a suitable recognition to be presented to his widow and daughter. If there are others of our membership who have left us for another sphere, a new world, if their friends will hand in their



names, I shall be pleased to receive a motion that our sympathies be extended to their families, and to appoint a committee to carry out the wishes of the meeting.

## OFFICERS FOR 1901.

At the conclusion of the president's address the following officers and directors were elected:

President—Richard Gibson, Delaware; Vice President, Arthur Johnston, Greenwood; Secretary-Treasurer, A. P. Westervelt, Toronto.

Vice-presidents (representing the different provinces)—Ontario, H. Wade, Toronto; Manitoba, Hon. Thos. Greenway, Crystal City; Northwest Territories, C. W. Peterson, Calgary, Alta.; Quebec, H. D. Smith, Compton, Que.; Nova Scotia, E. B. Elderkin, Amherst, N.S.; New Brunswick, Bliss Fawcett, Sackville, N.B.; British Columbia, G. H. Hadwin; Prince Edward Island, Senator D. Ferguson, Charlottetown; Newfoundland, Hon. Thos. C. Duder, St. John's.

Directors—Shorthorns, Arthur Johnston, Greenwood, and Capt. T. E. Robson, Ilderton; Herefords, H. Wade, Toronto, and W. H. Hunter, The Maples; Galloways, D. McCrae, Guelph; Ayrshires, W. W. Ballantyne, Stratford, and Dan Drummond, Myrtle Polled-Angus, Jas. Bowman, Guelph; Jerseys, H. G. Clark, Bramp on, and Capt. Rolph, Markham. Ontario Agricultural College, Prof G. E. Day, Guelph; General Director—A. W. Smith, Maple Lodge.

Auditor—J. M. Duff, Guelph. Delegates to Fair Boards—Toronto Industrial, Major McGillivray, Uxbridge, and A. P. Westervelt, Toronto; Ottawa, J. G. Clark, Ottawa, and F. W. Hodson, Ottawa; London, R. Gibson, Delaware, and T. E. Robson, Ilderton; Brantford, G. W. Clemons, St. George, and I. R. Alexander, Brantford. Provincial Winter Fair, G. W. Clemons, St. George; Arthur Johnston, Greenwood, and John Bright, Myrtle.

Judges for Provincial Winter Fair—Moved by Major McGillivray, seconded by John Bright: "That we nominate the judges and leave the appointment in the hands of the executive committee." Carried.

On motion of Robert Miller, seconded by Henry Wade, it was resolved: "That two breeders and one exporter compose the committee that will pass upon cattle exhibits at the Provincial Winter Exhibition."

Judges nominated—Robert Miller, Stouffville; W. B. Wait, Salem; John Gibson, Denfield; Thos. Crawford, Toronto; Jos. Gould, Toronto; W. D. Flatt, Hamilton; A. W. Smith, Maple Lodge; A. J. Dunn, Toronto.

Major McGillivray moved, seconded by W. G. Pettit: "That a proper memorial, signed by the president and secretary of this association, embodying the language of the president very largely, be, on behalf of this association, forwarded to the family of the late John I. Hobson." Carried.

## 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.

Man wanted to do general farm work near St. Mary's. Must be a good plowman, gentle with horses, a good milker, and honest and trustworthy, with no bad habits. Would hire by the year or for eight or nine months, and give good wages to a capable man. Give references. Protestant preferred. No. 737. a

Young man wanted for eight months on a farm in Oxford Co. Will pay \$130 with board and washing for that time, or give \$170 by the year. No. 738. a

Wanted, young man for farm work. No. 739. a

Man, or boy, wanted for general work on a dairy farm. Must be a good milker. Address Jas. Stothart, Box 310, Peterboro', Ont.

Wanted at once, on a farm of 200 acres, in Bruce Co., young man, Protestant, for general farm work. Must be a good hand with a team. Will engage for seven months. No. 740. a

Teamster wanted on Iowa Agricultural College farm. Must be quiet and good with horses and keep his harness and team in good shape. No. 741. a

Wanted, man by the year near Portage La Prairie, able and willing to do all kinds of farm work, good with teams and capable plowman. Must not smoke nor have any bad habits, and be a good milker. Good wages given to the right kind of a man. Apply to L. A. Bradley, Box 134 Portage La Prairie, Man.

Good plowman, teamster and cattle man wanted by April 1, on a yearly engagement, for a stock farm in Manitoba. Married man, without family, preferred. House and garden furnished. Must board extra men when required. Also single man, used to cattle, wanted. No. 742. a

Good farm hand, married or single, who can plough well and is a good teamster, sober and steady, wanted on a stock farm in the Eastern Townships. Steady employment to the right kind of a man. Wages to a married man \$23 a month, house, wood and milk. To a single man \$17 a month and board. No. 743. a

Wanted, single or married man,

good plowman, and careful and kind to his team. Must be able to milk and be a total abstainer from drink and tobacco, and be well recommended. Will hire by the year or for 7 or 8 months, as agreed upon. Give experience and wages asked. No. 744. a

Immediate employment by the year to a first-class man who is a good stockman. Must be strictly honest and truthful. House and garden and keep for cow provided. No. 745. a

Wanted, a man for 8 months, or by the year. Must be a good man with horses and plow well, and be willing and able to do general farm work. Protestant preferred. Must not smoke. Wages, \$185 a year or more with board and washing. No. 746. a

One or two farm hands wanted; also a domestic. No. 719. b

Boy, from 16 to 18 years old, wanted. Must be a good milker and handy with horses. Will engage by the year, and pay suitable wages to a reliable boy. No. 720. b

Wanted, by the Bothwell Dairy Co., a good, strong, active boy, from 16 to 18 years of age, to assist the herdsman in taking care of cows, milking, feeding pigs, and doing other farm work. A good chance for promotion. No. 721. b

First class married man, with 2 or 3 grown up children, also a young man well trained in farm work, wanted on a fruit farm. No. 722. b

Young man, 18 to 20 years of age, industrious and of good habits, wanted on a farm. Would hire by the year, or for 8 months. No. 723. b

Wanted, a single man to care for a herd of dairy cows, help milk, and do other general work. Must be steady, and have no bad habits. Yearly engagement, and good wages and board. State wages asked, and give good references. No. 724. b

Good general farm hand required by the year. Must be a good milker, good plowman, and understand machinery, also be able to feed all kinds of stock and be kind to them. Wages, \$150 to \$175 with board and washing. References required. No. 725. b

Wanted about March 1, single man, or strong boy, used to general farm work, on an engagement of eight months or a year. Apply, with references, stating age and wages expected, to L. Rogers, Weston, Ont. b

Good man wanted for a good place on a farm near Gravenhurst. Good home and regular wages. No. 726. b

Good strong boy of 16 or 18, or young man, wanted on 100-acre farm in North Wellington, where mixed farming is carried on. Must have no bad habits, and be thoroughly reliable, as the proprietor is frequently away in winter, and be able to milk. Will hire by the year. Wages will be according to competency of man engaged. No. 729. b

Industrious young man of steady



habits, and used to all kinds of farm work, care of stock, and milking, wanted by the year, or for 8 months. State wages expected. No. 730. b

Good farm hand wanted by the middle of March or April 1, on a 100-acre farm near Fergus. Must be honest, obliging, and trustworthy, and have no bad habits. Wages, \$15 to \$16 a month for 7 or 8 months, or would hire for a longer period. Also boy wanted, about the same time. Must be able to plow well, and be honest and willing, with no bad habits. Wages, \$12 or more a month, according to ability. Address D. B. Scott, Fergus, Ont. b

Wanted, man experienced with live stock and all kinds of farm work, of temperate habits, and a good and careful worker. Must milk, if necessary. Will hire by the year, or for 8 months. No. 731. b

Single man wanted on a dairy farm near Toronto, to look after dairy cattle, milk, and make himself generally useful. Will hire by the year or for 8 months. Wages, \$18 a month, or \$180 by the year with board. No. 732. b

Wanted, a good steady man to work on a farm in Manitoba. Must be a good plowman, able to milk, look after horses and cattle, and take an interest in his work generally. Good wages and permanent employment to a good man. Also domestic wanted for general housework and to help with the milking. Good home and fair wages to a suitable person. No. 733. b

Young man from 18 to 20 years of age, who understands general farm work, wanted. Must be a good milker. Term to commence immediately for either 8 months or a year. Good wages given, with board and washing. No. 734. b

Wanted, at once, good reliable married man, with knowledge of farm machinery and implements, for a farm in New York State. Wages \$20 a month, free house and milk to begin with. Address, J. D. MacLeay, Tilsonburg, Ont. b

Young man required at once on a stock farm near Montreal, to work with horses. Must be temperate and a good ploughman. Good wages and board without washing. No. 735. b

Wanted young man between 16 and 19 years of age, just out from England, with some experience in farming, will hire by the year, teach him farming, and pay moderate wages. No. 736. b

#### Domestic Help Wanted.

Wanted, on a farm in Norfolk Co., a smart girl, from 17 to 25 years old, who understands all kinds of housework. Steady employment. State wages expected and give references. No. 747. a

Domestic wanted, to do general housework. No milking or outside work of any kind. Farm is within the corporation of a thriving town. Middle-aged person preferred. No. 748. a

Wanted, on a farm in Grey county, a general servant. Must be kind to children. Good place for a smart girl or woman. Wages, \$6 a month. No. 727. b

Housekeeper wanted on a farm in the township of Manvers. State wages asked. No. 728. b

#### Situations Wanted.

Good horseman, who understands stock and general farm work, wants a place. No. 910. a

Single man, 50 years old, thoroughly versed in stock-raising, dairying and general farming, in which he has been engaged for 33 years, wants a place as manager of live stock. First-class references. No. 911. a

Young man, 16 years of age, who has worked on a fruit farm and is accustomed to horses, wants a place. Is steady and a good worker. No. 912. a

Young married man, without family, is open to engagement as farm foreman in Canada or the States. Is used to fruit raising, dairying and other kinds of farm work. Must have a house and garden, and will board other men, if necessary. No. 913. a

Boy, 19 years old, who uses neither liquor nor tobacco, wants a place on a farm. No. 903. b

Boy is open to an engagement on a farm. Wages asked, \$150 a year. No. 904. b

Situation as general farm hand wanted by a sober, married man. Would take the management of a farm, or work it on shares. Is a Protestant and total abstainer. No. 905. b

Man, 22 years old, who has worked on a farm all his life, is open to engagement at once. No. 906. b

Married man, who can milk, run machinery, and do general farm work wishes to get a situation. State wages given. No. 907. b

Working foreman's place required. Would go to Manitoba or to the Western States. No. 908. b

Married man, French Canadian, with no children, who can speak English, and who has lived all his life on a farm, is open to an engagement. Has been for three years on a large stock farm in the Eastern Townships. Good references. No. 909. b

#### Domestic Situation Wanted.

Widow, with a little son 7 years old, wants a place. Good references. State wages given. No. 914. a

#### Farm Wanted.

Wanted to rent a farm near a city where milk can be sold. Address M. C., care of A. P. Westervelt, Parliament Buildings, Toronto. b

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

#### Farmers' Institutes.

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

G. C. CREELMAN,  
Superintendent Farmers' Institutes.

#### The Problem of Restoring Fertility to Worn Out Land.

"Some of my land will not produce a crop, although my father raised good crops on it. What shall I do to make it productive?"

This is a question frequently asked delegates at Farmers' Institute meetings. We should be very glad if any of the readers of the GAZETTE would give us the benefit of their experience in solving this problem. Please address your replies to The Superintendent of Farmers' Institutes, Parliament Buildings, Toronto, and we will publish them in this department.

#### Farmers' Institute Field Notes.

By the Superintendent.

IN THE FAR NORTH—MEETINGS AT FORT WILLIAM, PORT ARTHUR AND DRYDEN.

Mr. T. G. Raynor, of Rose Hall, and Mr. D. Drummond, of Myrtle, have been sent out by the Dominion Government to do Farmers' Institute work in the Northwest Territories. We made arrangements for them to stop en route at Fort William, Port Arthur, and Dryden, and to hold meetings there. This was the first time the farmers of this district ever had the advantages of a Farmers' Institute meeting, and the following letter from ex Mayor Jarvis, of Fort William, would indicate that they were well pleased:

"The lecturers that you sent up have been here and gone. They have left a good impression, and, for a pioneer country, I think that the reception they received was a good one. At the meeting in Fort William there were about 200 present, and the interest taken in the lectures was intense. As a good evidence of this, not one person left the hall whilst either lecturer was speaking, and the questions came fast and furious at Mr. Raynor. His knowledge is wonderful. I am informed that they had good meetings in the farming communities, and think you will find that the lecturers themselves will report that they are pleased with the reception given them. I am satisfied that their visit will result in a great deal of good, and I trust you will find it possible to send them up this way again next year. What our farmers want is light and education. I am sure it will not require much effort to get out good crowds next time. Those who did not go to the meeting

in Fort William are expressing themselves as sorry, and they have reason to feel so, as they missed a most interesting evening."

Mr. A. E. Annis, superintendent of the Pioneer Farm, at Dryden, also had good meetings, and in a letter to the superintendent after the delegates had gone west, he says:

"Our people seem to take kindly to the idea of sending delegates here, and wish arrangements could be made so that the publications usually sent to members of Farmers' Institutes can be received by them here. I hope that as opportunity presents itself you will send a delegate to this point."

FREIGHT RATES.

At several of the meetings held this winter resolutions have been passed urging the Dominion Government to appoint a commission to regulate the rates of transit on our Canadian railroads. The following is a copy of the resolution passed by the Farmers' Institute of South Bruce:

"Moved by Henry Arkell, seconded by R. E. Little, that this Farmers' Institute of the South Riding of Bruce, held in Teeswater, January 22, 1901, very earnestly and respectfully call the attention of the Dominion Government to the serious disadvantage to which our Canadian farmers are subjected by reason of inferior facilities and excessive rates of transportation in competing with the American trade for the control of the European and colonial markets. And we urge upon them the necessity of the immediate appointment of a commission, which shall be properly representative of the farmers and stockmen of the country, and to which shall be entrusted the entire regulation and control of freight rates on Canadian lines of railway, and of all space allotments and charges therefor in ships sailing from Canadian ports; and that a copy of this resolution be forwarded to the Dominion Government. (Sgd.) James A. Lamb, Walkerton, Secretary. P. H. McKenzie, Lucknow, President."

A similar resolution was also passed by the Farmers' Institute of East Simcoe.

The Care and Application of Manure.

Paper Read at a Farmers' Institute Meeting, by John McMillan, Seaforth.

The most successful farmer to-day (all other things being equal), is the man who can raise the greatest quantity of food on the least land, and with the smallest amount of labor. Large crops cannot be obtained from the same land for any length of time, unless an amount of plant food equal to that which the crops extract from the soil is returned to it. To retain fertility, all the crops raised should be consumed on the farm and the manure properly cared for and returned to the soil.

The quality of the manure depends upon:

The species of the animal producing it.

The age and condition of the animal.

The food of the animal.

The accommodation given to the animal.

The amount and quality of water supplied.

The management of the manure during its accumulation.

Its after treatment before it reaches the soil.

Manure produced from working or fattening animals will contain from 90 per cent. to 95 per cent. of the manure constituents contained in the food. Manure from milking cows and young growing animals will contain from 50 to 75 per cent. of the manural constituents contained in the food.

Farmyard manure is the staple manure that the Canadian farmer must depend on to keep up the fertility of the soil. It is not only unrivalled in composition, but its value is enhanced by its action on the soil during its decay. No other manure exerts such a powerful chemical and mechanical effect, and no other can be applied to all sorts of land with such positive certainty of effect. It is also found to be peculiarly durable, and these merits are quite sufficient to account for the high estimation in which it is held by the farmer.

Wrightsons' text-book, "Science in Farming," gives the estimated value of the solid and liquid excrement from animals kept on the farm.

One ton of fresh farmyard manure is valued at \$2.21; one ton of well-rotted manure at \$2.72.

Value of one ton of the solid and liquid excrement from animals is,—

|                  | Solid Excrement. | Liquid Excrement. |
|------------------|------------------|-------------------|
| From Horses..... | \$1.36           | \$8.62            |
| " Cattle.....    | 86               | 3.14              |
| " Sheep.....     | 1.50             | 11.31             |
| " Swine.....     | 1.79             | 3.06              |

According to the foregoing statement liquid manure is much more valuable than the solid excrement; then it is of the utmost importance that our stable floors should be made to hold the liquid manure. In many stables it is entirely lost by leakage through the floors. Cement floors, either in the common stall or in the box stalls, are the best for preserving all the fertilizing elements. There is also great loss in taking the manure from the stables and spreading it in the barnyard, where both snow and rain wash out the best of the liquid manure.

If put in the barnyard, the manure should be put in a tidy pile, and the cattle and horse manure mixed together; but it should be, if possible, put in a shed, and the cattle, if they are allowed in the barnyard, by trampling over the manure will prevent it from fermenting to the extent that it would ferment if put in a loose heap. If the manure is put in a shed, it should be watched, and, if any mould appears, it should be either dampened with water or sprinkled with land plaster which prevents the escape of the nitrogen and ammonia.

In an experiment a ton of manure fermented in a heap in the barnyard gave the following showing:

|                     | Total weight. | Nitrogen. |
|---------------------|---------------|-----------|
| Nov. 3....          | 2,000 lbs.    | 12.9 lbs. |
| April 30... 1,428 " |               | 12.8 "    |
| Aug. 23... 1,405 "  |               | 9.3 "     |
| Nov. 15... 1,391 "  |               | 9.2 "     |

Manure fermented under a shed.

|                   | Weight.    | Nitrogen. |
|-------------------|------------|-----------|
| Nov. 3....        | 2,000 lbs. | 12.9 lbs. |
| April 30... 992 " |            | 10.2 "    |
| Aug. 23... 800 "  |            | 10.2 "    |
| Nov. 15... 758 "  |            | 10.0 "    |

One ton of manure spread in the barnyard.

|                     | Weight.    | Nitrogen. |
|---------------------|------------|-----------|
| Nov. 3....          | 2,000 lbs. | 12.9 lbs. |
| April 30... 1,730 " |            | 9.2 "     |
| Aug. 23... 1,226 "  |            | 5.0 "     |
| Nov. 15... 1,150 "  |            | 4.5 "     |

At the end of one year, little over one-third of the nitrogen remained, hence the great loss in spreading manure in the open barnyard and allowing it to remain all summer.

I believe the best results are obtained by taking the manure from the stables to the field, and spreading it just as it is made, during the winter.

Chemists tell us that there are only two ways in which manure can lose its value, *i.e.*, by fermentation or by washing. There is no loss by fermentation if the manure is spread either in winter or during the dry weather in the summer. Our land is heavy clay and clay loam, and it is underdrained. Some farmers say the manure will lose much in the spring before the frost is cut of the ground, but well drained land does not freeze so hard as undrained land. In the former, the land is full of air, and as soon as a thaw comes it is open and the water filters through the soil into the drains. It has been proven by analyzing a ton of manure, then spreading it on the boards until the rays of the sun extracted all the moisture, and analyzing again, that there was almost no loss of the fertilizing elements.

Some believe in taking the manure out and leaving it in piles until spring, but if the piles are large, fermentation will take place and consequently loss. If the heaps are small, in the following crop there will be a bunch of strong grain where each heap was laid.

We should cut all the straw we use for bedding as it takes up the liquid manure better and is easier wrought into the soil. I believe in working all the manure in from the surface and not plowing it down.

Taking the manure out in winter is also a great saving of labor in the busy season during the summer, when labor is often scarce and dear.

I think it more satisfactory in applying manure to put it on corn and root lands. If manure is applied to a crop of oats, there will be a strong growth of straw which is likely to get laid down, and the crop of grain will not be much benefited, but when applied to corn or roots, the result is in my opinion much more satisfactory.

Before a farmer purchases any kind of a fertilizer, he should see that there is no loss in the fertilizing elements in the manure made on the farm.

# The Farm Home

## She Noddit to Me!

(A Favorite with the Queen.)

The following little poem, "She Noddit to Me," was published about sixteen years ago in the *Aberdeen Journal*. The poem pleased the Queen so much that she ordered a copy of the northern paper to be sent to her regularly.

I'm but an auld body  
Livin' up in Deeside,  
In a two-room'd bit hoosie  
Wi' a roofa' beside.  
Wi' a coo and my grumpy  
I'm as happy's a bee,  
But I'm far prooder noo  
Since she noddit to me.

I'm nae sae far past wi't,  
I'm gie trig and hale—  
Can plant twa-three tawties  
An' look after my kail;  
And when oor Queen passes  
I'm oot to see,  
Gin by luck she micht notice  
And noddit to me!

But I've aye been unlucky,  
And the blinds were aye doon,  
Till last week the time  
O' her veesit cam roon'  
I waved my bit apron  
As brisk's I could dae,  
An' the Queen lauch'd fu' kindly  
An' noddit to me!

My son sleeps in Egypt—  
It's nae eese to freit—  
An' yet when I think o't  
I'm sair like to greet.  
She may feel for my sorrow—  
She's a mither ye see—  
An' maybe she kent o't  
When she noddit to me!

## 'Lon Snow's Peculiar Flock.

By Charles Bastell Loomis, in *Saturday Evening Post*.

It was on the occasion of the celebration of the fiftieth anniversary of the wedding of Giles and Hannah Baker that Sile Andrews told about the poultry experience of his city cousin, 'Lon Snow.

The "women folks" were visiting with sweet old Mrs. Baker in the south parlor, and the men were all assembled with Giles in the North parlor before a good old-fashioned open fire, for it was a frosty November night.

The talk had fallen on the knack that some people had with hens, while others, try as they may, never seem to be able to do anything with them.

"I never bothered with 'em myself," said Giles. "Mother's had 'em an' got tired of 'em, an' had 'em ag'in, but never seemed to me as if they was wuth their keep. When eggs are high they won't lay."

"That's the trouble 'Lon Snow had," said Sile Andrews, throwing the core of an apple into the fire. "Never hear 'baout my cousin 'Lon?" said he, turning to me.

I was glad to be able to say I had not, for it meant a new story from Mr. Andrews, and I knew from experience that he had what the critics call a good sense of selection."

He leaned forward and rested his chin on his hand and said:

"Well, 'Lon Snow was born an' brought up in the city, which was a misfortune to start with, an' besides

memory. He wanted to go right aout an' buy some hens that night. Thought a hundred would do fer a starter. But Ma tol' him that fifteen to twenty was all he could manage at the start an' he finally agreed. 'What sort'll you keep, Plymouth Rocks and Braown Leggs?' says she, an' I could see by the way he hesitated an' at last said, 'Braown Leggings,' very distinct, that he didn't know anything whatever 'baout hens.

"Nex' mornin' we went over to Deacon Foster's to buy the hens. He had purt' near five hundred walkin

I mean that I want the big vari'ty, the ones with the large combs and the big tail feathers; not those sober ones with no tails at all"



that he hadn't no more sense of humor 'an a hen —"

"An' he was all-fired pig-headed, too," put in Sam Barlow.

"Well, I'm comin' to that. When he got 'baout forty year old the doctor told him he'd got to stop workin' in an office an' go into the country to live or he'd peg aout in a short time. So he wrote to ask ef he could visit us fer a spell an' I wrote back 'Come on', an' he come.

"When he got to the haouse he was the whites', mos' pindlin' lookin' man I ever see. Looked as if he'd slump into himself ef the wind changed sudden. He moped araound the haouse a few days an' talked crops ter me at meal times an' in the evenin' until I wisht I'd never took up farming'. Gosht, it was awful ter hear his views. Finally he said that the idleness was killin' him an' he wanted to take up farmin'. I choked daown my feelin' an' said he warn't built for heavy farm-in', but mebbe he might do a little hen business. Then Mis' Andrews, she got takin' to him. I kep' my maouth shet fer I knew he couldn't 'earn from me, but M i filled him up good on the proper food an' he nodded his head, very wise, 'sif he knew it all but was glad to have her freshen up his

'round his farm on Redtop. They did look mighty slick, an' 'Lon was tickled to death with 'em. He asks the old deacon haow much he'd charge apiece and the deacon says, 'Seventy-five cents.' 'That's reasonable,' said 'Lon, though he didn't know if it was or not. Then he looked 'round with a critterkal eye an' he says:

"By the way, I on'y want the ones with fine feathers. I never cared fer the little sober ones."

"What do you mean?" said the deacon.

"I mean," says 'Lon with all the dignity that a city man could git on to him, 'that I want the big vari'ty, the ones with the large combs and the big tail feathers; not those sober ones with no tails at all. I'm go'n' about this thing the right way, an' I might as well have good hens as poor ones."

"Well, the deacon, he stepped behind the barn door to conceal his feelin's, which was powerful at the time, an' when he comes aout he was as sober lookin' as 'Lon. 'All right,' says he, 'but I'll tell you honest, it's the little ones 'at'll lay the most eggs."

"But 'Lon couldn't be changed. He was go'n' in fer looks, he said, an' anyhow he guessed he'd make 'em lay if any one could. 'I don't daoubt it,

says the deacon with a cheerful smile, 'but ef you're go'n' to take the pick of the flock I'll hev to charge ye a dollar apiece.' 'Lon warn't no way small, an' he agreed to the terms an' arranged to come at night an' git 'em."

"I remember 'em," said Barlow. "As purty a flock as I ever see with their high steppin' ways. I used to go up an' tell your cousin that he ought to exhibit 'em at Merwinton Fair, 'an he said he guessed he would. O'ny fault he found with 'em was they was quar'lsome an' slow to git to layin'. I says: 'Ef the redness of the comb is any sign you oughter hev eggs purty soon."

"Well," resumed Sile, "he never suspected nothin', but went to feedin' 'em fer eggs accordin' as Ma had told him the fust night. She said it was a shame not to tell him what kind of hens they was, but I argied that it kep' him busy about er doors an' that's what he needed. He didn' need eggs any more'n a hen needs teeth."

"Didn't he ever find out?" I asked, seeing that there was a move in the other room that suggested a breaking up of the gathering.

"Well, matters went on fer 'baout three or four weeks, an' then one mornin' in May, when eggs was so plentiful that they was usin' 'em to stone cats with, he comes into the barn where I was sharpenin' my ax on the grin'stun an' he says: 'Funny my hens don't ever go near their nests. An' they're quar'lin' all the time.'

"Then I says: 'Lon,' says I, 'some folks never can l'arn anythin' arter they're growed up, an' you're one of 'em. You was dead set on gittin' that breed although the deacon toid ye the small ones was the best fer eggs. Naow the city's a good place ter live in fer a few things but you don't l'arn everything ther'. Some country folks hev one rooster to a flock an' some don't hev any, but your city notion of hev'in' every one a rooster ain't conducive to eggs!'"

### On the Farm.

Why do the boys leave the farm? Some do not naturally, like their brothers, take to farming, and so go to town and into a shop or store, while others learn a trade. Other young men again leave their father's fireside, without a purpose, scarcely knowing why they do so, merely led away by the thought of being in town, and having an easy time.

As an inducement to boys to remain on the farm let the farm home be as beautiful and attractive as possible.

What a difference flowers make! If we scatter them in every little corner of the garden what a bright yard we would have. They elevate the mind, and cheer the drooping heart.

Parents should have plenty of well-selected books, which with true parental love and care will keep many young men from leaving home, and turning into prodigal sons. Every son should

be given a good practical education, that will enable him to cope with every problem with which he comes in contact, like any business man. In contrast with this some young men are made to feel like "stupid hayseeds," as they are called, simply by parents neglecting their education.

Many parents have slaved and pinched to leave their children rich, when half the money thus used, would have profited them far more, had it been devoted to the cultivation of their minds; enlarging their capacities to think, observe, and work.

The farmers' calling certainly has in it no sudden leaps to fame or eminence, yet it is the surest way to comfort and independence; for go, search where you may, there cannot be found an occupation more invigorating and independent than farming.

Each year holds something for us. Sometimes it is a loss of stock, or the wheat has not turned out as it should, when we most depended on it, which causes much worry. Then, again, everything turns out differently another year, and we have an abundance of everything, and a good harvest; but through it all God sees best what to give us.

Each year of devotion to the farm, we hope will find it more valuable, more profitable and picturesque than the last, and let us trust that the boys will take delight in it, and love the dear old homestead.

EMMA WOODLEY.

Springdale Farm, Wentworth Co.

### Hints by May Manton.

Woman's Shirt Waist. No. 3766. To be Made With or Without the Fitted Lining.

Russian styles are generally becoming, and bid fair to hold their place for some time to come. The very pretty shirt waist illustrated exemplifies one of the latest variations, and is adapted alike to silk, wool materials, and the wide range of cottons and linens now shown. The original is of white linen lawn with trimming of needlework, and is unlined, but the pattern includes a fitted lining that greatly improves silks of all sorts.

The back is laid in straight tucks



3766 Shirt Waist,  
32 to 40 in. bust.

that launder to a nicety, and that are laid over at the waist line to form a V, and provide the smooth fit essential to the present style. But the fullness can be arranged in gathers and simply drawn down if preferred. The fronts are laid in narrow tucks that extend from each shoulder to yoke depth, and provide fullness below that falls in soft, becoming folds to the waist line, where they are gathered and adjusted to suit the needs of the figure. Included in the shoulder seams are bands of embroidered insertion, finished with pointed ends on back and front, the same width insertion being applied over the cuffs and stock collar as illustrated. The sleeves are in bishop style, with straight cuffs at the wrists. At the neck is a stock that is finished separately, and closes at the centre back.

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

The pattern No. 3766 is cut in sizes for a 32, 34, 36, 38, and 40-inch bust measure.

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

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

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## RINGWORM ON CALVES.

A subscriber at Harrow, Ont., wishes to know a remedy for ringworms on calves.

A good plan is to wash the spots affected with soft soap and paint the bare places with tincture of iodine. Then feed a tablespoonful of powdered sulphur twice a week with the calves' food for a while.

## Ontario Prize Winners in Seed Selection.

Professor Robertson has distributed another portion of the \$10,000 which Sir William C. Macdonald, of Montreal, donated to be distributed in cash prizes, to encourage and stimulate Canadian boys and girls who live on farms to observe closely and select carefully seed grain according to a scientific and practical system. The names of those who have been successful in winning prizes with 100 selected heads of oats, are as follows:

1, Duncan and Nellie McBeath, North Bay, \$25; 2, Bertie Andrew & Co., Sheridan, \$20; 3, E. and M. Cochran, Ayr, \$15; 4, Grace Judd, Dœ Lake, \$12; 5, John Price, Marsville, \$10; 6, Claud Coon, Athens, \$8; 7, Chas. Dixon, Dromore, \$5; 8, Wilbert Prouse, Goderich, \$5; 9, Harvey Lennox, Magnetawan, \$5; 10, Alfred Mountain, Avonbank, \$5.

## Canadian Forestry.

The second annual meeting of the Canadian Forestry Association was held at Ottawa last week. Quite a number interested in the preservation and restoring of our forests were present and took part in the discussion. Papers were read by J. R. Anderson, Deputy Minister of Agriculture for British Columbia; Mr. E. Stewart, Dominion Superintendent of Forestry; Dr. Fletcher, Dominion Entomologist; Mr. John Bertram, Toronto; Mr. J. C. Langelier, Superintendent of Forest Rangers; Dr. Schenck, and others. An important subject discussed was that of reforestation. Mr. W. N. Hutt, of Welland, deplored the wholesale cutting down of valuable timber in the more settled parts of Ontario. This was due largely to the ignorance of farmers who did not believe that the woods could be systematically managed, or that they are capable of producing a regular crop in twenty years.

## Manitoba Breeders and Dairy-men.

### CATTLE BREEDERS.

The Pure Bred Cattle Breeders' Association of Manitoba met at Winnipeg on Feb. 20. Mr. Geo. Steel, of Glenboro, presided, and in his address stated that while the last season was the worst Manitoba had experienced for many years, the cattle industry had not suffered. The association was formed in 1890, and had a membership of 30, whilst last year the membership was 98.

A resolution to leave out "and the Northwest" from the name of the association was adopted; also a resolution that the secretary-treasurer in future be elected by the directors instead of by the members.

The officers for 1901 are: Mr. Andrew Graham, of Pomeroy, president; Mr. F. W. Brown, 1st vice-president; Mr. J. E. Marples, of Deleau, 2nd vice-president. Directors—Shorthorns, J. G. Barron; Herefords, J. A. Chapman, of Beresford; Polled Angus, John Traquair; Gilloway, Wm. Martin; Ayrshires, Thos. McCartney. Additional directors—Messrs. Washington, James and Style. Auditors: Messrs. Waugh and McKellar. Representatives to the Fair Board—Winnipeg, James Bray; Brandon, Wm. Chalmers; Portage la Prairie, F. W. Brown; Carberry, J. G. Barron; Neepawa, G. S. McGregor; Boissevain, W. Ryan; Deloraine, J. Renton; Rockwood, W. James; Gladstone, H. R. Keyes; Carman, Mr. Henders; Killarney, R. McLennan; Cypress River, Mr. Con-

non; Holland, R. J. Stewart; McGregor, Jas. Muir; Manitou, John S. Robson; Kildonan, H. O. Ayerst; Glenboro, Geo. Steel. M.P.P.

Provincial auction sales were brought up, and after considerable discussion a motion was carried to dispense with government aid in connection with auction sales. A similar motion to that passed at the Swine and Sheep Breeders' Association in regard to the establishment of an agricultural college for Manitoba was unanimously adopted.

The meeting was addressed by T. G. Raynor, Rosehall, Ont.; D. Drummond, Myrtle, Ont., and Prof. Day, of the Ontario Agricultural College.

### JOINT MEETING.

A joint session of the Sheep, Cattle, and Swine Breeders' Association was held on the evening of Feb. 20th, at which addresses were delivered by Hon. Thomas Greenway, Prof. J. H. Grisdale, of the Central Experimental Farm, Ottawa, Supt. Bedford, of the Brandon Farm, and Prof. Day, of Guelph.

Mr. Greenway discussed the tuberculin test, after which a resolution was adopted disapproving of the regulations in regard to the tuberculin test, and advocating the abolishing of the system.

A resolution was also adopted showing that the dates for holding the Winnipeg Industrial are too late in the season to suit Manitoba farmers and visitors from a distance, and recommending that the show be held at least two weeks earlier.

### THE DAIRYMEN.

The 15th annual meeting of the Manitoba Dairy Association was held on Feb. 21st. There was a fair attendance and the province was well represented.

The President, Wm. Grassick, in his address referred to the demand for first-class butter in British Columbia being larger than the supply. The cheese industry had also been a source of profit, the output being larger and the price the same as last year. The Government would render a great boon to the butter and cheese industry if instructors were appointed to visit all factories. None but first-class men must be given charge of the factories if it was wished to improve the quality of our butter and cheese.

The report of the directors, which covered the work of the year pretty fully, was in part as follows:

Your directors desire to say that undoubtedly a large amount of very bad butter and cheese was made

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last year, and to some extent at least the reputation of the province was thereby damaged on the British Columbia market; on the other hand, butter and cheese, if of the first quality, found a ready market at the coast, and a much larger quantity could have been sold had it been available. There is no question in the minds of your directors that much of the inferior cheese was due to the practice of produce merchants buying everything in sight. By some houses, of course, discrimination was experienced, but by others there was none, and the result was disastrous to good makes. Your directors must heartily endorse the suggestion of the president with regard to registering of trade marks and the adding of two instructors to the Government Dairy Department.

Addresses were delivered by J. D. Moran, Hugh McKellar, J. A. Riddick, Assistant Dairy Commissioner, Ottawa; S. A. Bedford, J. G. Rutherford, C. Marker, C. A. Murray, Prof. Robertson, and J. W. Mitchell.

The following officers were elected for 1901:

Wm. C. Champion, president; R. Waugh, first vice-president; W. B. Gilroy, second vice-president; Miss E. Cora Hind, secretary-treasurer. Directors—Wm. Grassick, Pilot Mound; Wm. Ryan, Ninga; Wm. Scott, Winnipeg; Stephen Benson, Neepawa; S. Larcombe, Birtle; S. A. Race, Brandon; W. D. McCuaig, Macdonald; J. T. Regehr, Hochstadt; S. Thorvaldson, Icelandic River. Representative to Winnipeg Fair Board, Geo. Harcourt. Auditor, G. H. Greig.

HORSE BREEDERS.

The Horse Breeders' Association of Manitoba met on Feb. 21.

The president, Mr. J. G. Rutherford, V.S., of Portage la Prairie, tendered an address in which he congratulated the members on the large increase of membership. He said the development of horse-breeding is of vital importance to the country, and to the farmers engaged in wheat growing.—that horse breeding was in his opinion of even more importance to the country than the swine and cattle breeding. He thought that the using of a good stallion was of even more importance to horse breeders than using a thoroughbred bull in cattle breeding; then it took longer to rear horses than swine or cattle, and when the horse was brought to maturity, if a scrub sire had been used, not more than the cost of raising the colts could be obtained.

The secretary, Mr. Geo. Harcourt, made his yearly report, referring to the work of the executive committee, especially in regard to the establishment of army re-mount stations and the prevention of importations of cheap horses from the States, the government having been asked to prohibit the importation of horses of a less value than \$50. There would also be in future prizes for saddle horses to encourage the breeding of horses fit for army remounts.

Officers for 1901 were elected as follows: President, J. G. Rutherford; J. E. Smith, of Brandon, vice president; Stephen Benson, of Neepawa, second vice-president; George Harcourt, secretary-treasurer.

Directors—For Clydesdales, Mr.

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McMillan, of Brandon; Shires, E. J. Moore, of Swan Lake; Percheron, W. J. Brown, Headingly; standard breeds, T. E. Kelly, Brandon; coach horses, Alfred Muir, High Bluff; hackney, A. J. Moore, Swan Lake; thoroughbreds, N. Boyd; additional directors, Messrs. Powers Thomson and Fraser.

Representatives to fair boards were then elected as follows: Winnipeg Industrial Fair Board, R. I. M. Power, of Carberry; Portage la Prairie, John Wishart; Brandon, Henry Nicol; Neepawa, J. H. Irwin; Oak River, Hamiota, and Rapid City, J. R. Rankin; Carberry, N. Boyd; Holland and Treherne, Dr. Lipsett; Cypress River, James Connon; Glenboro, Geo. Steel, M.P.P.; Hamiota, J. S. Robson; Souris, R. G. Crisp; Carman, R. C. Henders; McGregor, F. J. Thompson; Virden and Elkhorn, Mr. Struthers; Emerson, W. W. Fraser; Kildonan and Springfield, A. Paterson; Boissevain, J. W. Knittle; Hatney, Wm. Forbes; Oak Lake, James Ross; Minnedosa, Stephen Benson.

#### CHEESE AND BUTTER MAKERS.

The annual meeting of the Cheese and Butter Makers' Union was held on Feb. 22. Mr. S. M. Barre, president, presided. Addresses were delivered by J. A. Ruddick, C. Marker, Mr. Black and others.

The following resolutions were adopted:

"First, asking of the railway company a reduction in rates on butter, cheese, and meats in British Columbia and Montreal, owing to the fact that a large quantity of butter and meats are imported from the States and elsewhere into British Columbia in winter, and in consequence we are losing a valuable market, while the railway company lose a valuable traffic."

"Owing to the fact that considerable quantities of butter and meat are imported into British Columbia, and sold at a very low price, we hereby ask the Federal Government to increase the duty on the above named goods to the same rate as we are charged on Canadian goods of similar character going into the States."

#### Pea Combed Plymouth Rocks.

About a dozen years ago an enterprising poultry fancier discovered that no one breed of fowls described in the Standard possessed all the really desirable qualities or points necessary to make it a perfect type for a practical business fowl, and so set himself to work to produce, or breed up to such an ideal. A perfect specimen of dressed poultry in market should be of

medium to large size, and plump in form; about standard Plymouth Rock proportions. It must possess smooth, clean, yellow legs, yellow bill and yellow skin, without black pin feathers, and a very diminutive comb. This last requirement is a very essential one for several reasons. First, a tall thin spiral comb is almost certain to become frosted in any of our Northern States in winter, and a frozen comb always throws a fowl out of condition to produce eggs just at a season when they are most desired. Secondly, an overly large comb gives a dressed fowl an aged look, which greatly detracts from its market value. Place a dressed six month Leghorn cockerel in the market, and the first old Irish lady who comes along will exclaim, "He's an aould bird, look at the comb on him!" So, while for practical reasons the comb must be small, to suit the fancy it must be of a certain well defined type—something to breed to and demonstrate its purity. That type of comb known as "pea" to which the Light Brahma may be referred as most common, being undoubtedly the most desirable, was selected, and has been bred upon otherwise standard Plymouth Rock stock, in both clear white, and solid buff, which are the only featherings covering clear yellow skins, and devoid of black pin feathers.

This gives as nearly an ideal general purpose, business, and market fowl as it is possible to produce. After ten years of critical selection and breeding they now come as true to type and with as few sports as any of the acknowledged standard breeds. As yet they are in the hands of but a few persons, who seldom advertise for the reason that they are unable to supply the already existing demand, and it will be no surprise to see, within another decade, this type of fowl one of the most popular in America, simply because it is the most sensible combination for all business purposes, and Americans are sensible business people. The Pea Combed Plymouth Rocks are found to be most excellent layers, both winter and summer.—T. F. Tillinghast.

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good sires. Also several  
fillies and a few young  
Shortborns. Farm a  
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Dear Sirs—We are very glad to say that Fleming's Lump Jaw Cure is worth having on a farm and I think every farmer should keep it in hand. One of our cows had the Lump-Jaw, and it was only seven days from the time we put it on until the lump was gone. It's the best in Canada to-day. Yours truly, HOWARD COATES

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**SHORTHORN BULLS.**

Thos. McDowell, Shawville, Que., Pouper = 28137 =, calved July 9, 1898. Andrew Sly, Shawville, Que., \$75.  
 Jno. Bright, Myrtle, Ont., Lord Logan = 36460 =, calved March 2, 1899. C. H. Tamor, Beach Grove, Ont., \$110.  
 Jas. O'Dair, Kemptville, Ont., Pride of Pine Grove = 36822 =, April 21, 1899. A. M. Todd, Kalamazoo, Mich., \$55.  
 Jas. Sloan, Kemptville, Red Duke = 30928 =, calved April 2, 1899. Wm. Moore, North Onslow, Ont., \$55.  
 Wm. Ormiston, Jr., Columbus, Ont., Duke Lad = 36204 =, calved Oct. 1, 1899. A. M. Dechene, St. Roque, Que., \$130.  
 Alex. McKenzie, Columbus, Ont., Bruce Enfield = 36251 =, calved Dec. 17, 1899. Peter Cocklan, Almonte, Ont., \$180.  
 Wm. Bain, Taunton, Ont., Lord Roberts = 35999 =, calved Feb. 4, 1900. Wm. Argue, Carp, Ont., \$90.  
 A. W. Smith, Maple, Lodge, Ont., Prince Trim = 36405 =, calved March 10, 1900. Thos. Cox, Buckingham, Ont., \$105.  
 Wm. Ormiston, Jr., Roan Lad = 36205 =, calved March 10, 1900. Wm. McGarry, McGarry's Corners, Ont., \$225.  
 Thos. McDowell, Edward VII. = 36306 =, calved Aug. 5, 1900. C. J. McKenzie, Barrett's Rapids, Ont., \$80.  
 A. W. Smith, Verossa = 36150 =, calved April 6, 1900. Thos. Little, Bacaburg, Ont., \$105.  
 Wm. Ormiston, Jr., African Lad = 36203 =, calved April 20, 1900. Alex. McFavish, Carleton Place, \$150.  
 Hon. John Dryden, Brooklin, Ont., Triumph = 34064 =, calved Oct. 13, 1899. Prince Edward Island Government, per E. Rogers, Commissioner of Agriculture, \$505.  
 Jeffrey Bros., Whitby, Ont., Patrician = 36391 =, calved Oct. 5, 1899. P. E. I. Govt., \$270.  
 Wm. Ormiston, Jr., Royal Lad = 36038 =, calved April 30, 1900. James Byers, Pittston, Ont., \$100.  
 Charles Calder, Brooklin, Ont., Brooklin Her., Jun., = 36527 =, calved Dec. 8, 1899. R. H. Grant, Hazledan, Ont., \$100.  
 Wm. Bright and Sons, Raglan, Ont., David Harau, = 36612 =, calved January 3rd, 1900. David Russell, Bristol, Quebec, \$110.  
 John Bright, Duke of Cornwall, = 36621 =, calved April 13th, 1900. W. H. Suller, City View, Ont., \$105.  
 John Bright, Snowflake, Vol. 18, calved

Feb. 19th, 1900. A. Montgomery, Pittston, \$100.  
 John Bright, Mike Tooley, = 36622 =, calved Feb. 26, 1900. E. Cornell, Lyn, Ont., \$105.

**SHORTHORNS—FEMALES.**

John Bright, Rosaland, Vol. 18, calved June 27th, 1890. A. M. Todd, Kalamazoo, Mich., \$155.  
 John Bright, Lady Roberts, Vol. 18, Aug. 2nd, 1899. A. M. Todd, \$200.  
 John Bright, Jenny Lind, Vol. 18, Jan. 2nd, 1900. A. M. Todd, \$75.  
 John Bright, Pansy Blossom, Vol. 18, Jan. 7th, 1900. A. M. Todd, \$150.  
 John Bright, Princess Olga, Vol. 18, Jan. 13th, 1900. A. M. Todd, \$190.  
 John Bright, Flirtation, Vol. 18, March 14th, 1900. A. M. Todd, \$135.  
 John Bright, Jessie Alexander, Vol. 18, April 3rd, 1900. E. B. Elderkin, Amburst, N.S., \$120.  
 John Bright, Edna Lyall, Vol. 18, May 7th, 1900. E. B. Elderkin, \$85.  
 John Bright, Fanny Fairfax 2nd, Vol. 18, May 16th, 1900. E. B. Elderkin, \$80.  
 John Bright, Queen Alexandra, Vol. 18, June 29th, 1900. A. M. Todd, \$210.

**HEREFORDS—FEMALES.**

H. D. Smith, Compton, Que., Sandra, = 1353 =, July 4th, 1895. J. L. Lamoyne, Compton, Que., \$100. (This cow was re sold a few minutes afterwards to J. E. Armstrong, Kinburn, Ont., for \$120. Mr. Armstrong was not quick enough in bidding, and therefore had to pay extra for her. However, she is splendid value at \$120.)

**AYRHIRS—BULLS.**

R. Rothwell, Ottawa, Harcourt of B, = 7890 =, Sept. 14th, 1895. J. W. Bogart, Mowarth, Ont., \$65.  
 John D. McInnes, Glen Payne, Ont., Laird of Glenpayne, = 12549 =, March 5th, 1898. S. Duncan, Johnstoo's Corner, Ont., \$40.  
 J. G. Clark, Ottawa, Lord Kitchener, = 10836 =, Jan. 28th, 1899. Ed. Boyd, Carp, Ont., \$20.  
 J. Vuill and Sons, Carleton Place, Ont., Wallace Meadowside, = 10513 =, Feb. 8th, 1899. Arthur Ryan, Fernier, Ont., \$30.  
 Jno. R. Campbell & Son, Vernon, Ont., Victor of Green Valley = 10612 =, March 11, 1899. Alex. McLean, Carleton Place, \$35.  
 J. G. Clark, Bobs of Wood Roofe = 12908 =, June 15, 1899. J. D. McInnis, Glen Payne, Ont., \$35.  
 Jno. R. Campbell & Son, Prince of Green Valley = 10611 =, July 10, 1899. W. C. Edwards & Co., Rockland, Ont., \$25.  
 Hon. W. Owens, Montebell, Que., Sir Hector = 13064 =, Sept. 1, 1900. David Barr, Rentrew, O. t., \$30.

W. W. Ogilvie, Lachine Rapids, Que., Gilmore Dairy King = 11423 =, Aug. 20, 1899. W. C. Edwards & Co., \$130.  
 R. Reid & Co., Hintonburg, Ont., Sir Sandy = 12020 =, Aug. 27, 1899. Jno. H. Frankland, Pendlitton, Ont., \$40.



W. H. HOLLAND.

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R. R. Ness, Howick, Que., Garnet o Burnside = 12933 =, Sept. 3, 1899. W. C. Edwards & Co., \$50.

R. Reid & Co., Golden Prince = 12806 =, Sept. 15, 1899. J. McCoy, Prescott, Ont., \$65.

R. Reid & Co., Gold King Again = 12807 =, Joseph Edy, Carp, Ont., \$35.

R. Reid & Co., Sir Wallace = 12899 =, Sept. 28, 1899. E. R. Honeywell, City View, \$30.

J. Yuill & Sons, Prince Meadowside = 11908 =, Oct. 13, 1899. C. Hardy, Buxwille, Ont., \$40.

J. Yuill & Sons, Edwin Meatowland = 11901 =, Oct. 23, 1899. Wm. McLellan, Forest Falls, Ont., \$50.

J. Yuill & Sons, Dainty Lad of Meadowside = 11899 =, Dec. 2, 1899. Mrs. Scott, Hull, Que., \$18.

J. H. Douglass, M.P.P., Warkworth, Ont., Lord Minto = 12379 =, Jan. 6, 1900. S. J. O'Brien, Rentrew, \$30.

J. H. Douglass, Silver Prince = 12404 =, Jan. 19, 1900. John Morrin, Bell Riviere, Que., \$50.

D. Drummond, Myrtle, Ont., Maggie's Boy = 12047 =, Jan. 28, 1900. H. M. Mother, Hardsman Bridge, Ont., \$25.

Robt. Hunter, Maxville, Ont., Rae of Springhill = 12175 =, Feb. 5, 1900. J. D. McInnis, Glenpayne, Ont.

Hon. W. Owens, Mntebello, Que., Cronj = 12902 =, April 3, 1900. M. Ya es, Athens, Ont., \$40.

Robt. Hunter, Bobs of Springhill, April 18, 1900. David Curry, Tobique River, N.B., \$10.

Arch. Campbell, Howick, Que., Goldfinch = 12934 =, June, 1900. W. H. Sullivan, City View, \$9.

J. D. McInnis, Ronald = 12930 =, June 15, 1900. Thos. Longdale, Buckingham, Que., \$25.

BERKSHIRES—FEMALES.

Frank Hayes, Bear Brook, Ont., Ethelair = 7747 =, July 29, 1895. S. Fee, Cummings Bridge, Ont., \$55.

Frank Hayes, Loucain = 8233 =. J. G. Clark, Ottawa, \$90.

Frank Hayes, Lily of the Snow, Jan. 1898. W. H. Sullivan, City View, \$100.

Frank Hayes, Minnie Clyde = 10250 =, May 29, 1898. J. G. Clark, \$85.

Robt. Reford, Ste. Anne de Bellevue, Que., Miss Blossom of Ste. Annes = 1174 =, Sept. 20, 1899. D. Lennix, Leitrim, Ont. \$75.

GUERNSEYS—BULLS.

Experimental Farm, Nappan, N.S., Don of Nappan = 7924 =, March 12, 1898. Geo. Moffat, Nepean, Ont., \$35.

HOLSTEINS—BULLS.

Jno. A. Richardson, South March, Ont., Neptune Abbeker = 1963 =, June 25, 1900. P. Madden Jocksdale, Ont. \$22.

G. W. Clemons, St. George, Ont., Artis Mark Mercedes = 1989 =, Aug. 5, 1900. W. J. McNaughton, Lancaster, Ont., \$50.

G. W. Clemons, Cornelius Castine King = 1991 =, Sept. 2, 1900. F. C. Jaine, St. Andrews, N.B., \$37.

JERSEYS—BULLS.

J. H. Pillar, Russell, Ont., Dufferin

= 59449 =, Feb. 21, 1900. D. Curry, Tobique River, N.B., \$15.

BERKSHIRES—BOARS.

J. Yuill & Sons, General Andrews M = 7751 =, Nov. 2, 1899. James Taylor, Galeata, Ont., \$16.

R. Reid & Co., Spanish Boy = 8406 =, May 25, 1900. Jno. Minoque, Cumberland, Ont. \$15.

Compton Model Farm, Compton, Que., Kim = 8445 =, Oct. 15, 1900. W. J. McEwan, Maxville, Ont., \$10.

BERKSHIRES—FEMALES.

R. Reid & Co., Duchess Again = 8379 =, March 20, 1900. Andrew Spratt, Olan, \$24.

TAMWORTHS—BOARS.

R. Reid & Co., Bobs = 2103 =, June 3, 1900. A. Boyd, Kais, Ont.

H. D. Smith, Compton, Que., Ingleside 205 = 2101 =, Joseph S. Robinson, Winchester, \$10.

TAMWORTHS—FEMALES.

R. Reid & Co., Amber Jess = 2102 =, June 3, 1900. A. E. Riddle, Galeata, Ont., \$20.

Jno. A. Richardson, Feter = 2082 =. Joseph Kerr, Gatineau, Pt. Que., \$14.

Jno. A. Richardson Lily = 2085 =, July 25, 1900. W. Mackay, Morewood, Ont., \$11.

Jno. A. Richardson, Fannie = 2084 =, July 25, 1900. W. McKay, \$10.

YORKSHIRES—BOARS.

Brethour & Saunders, Burford, Ont., Oak Lodge Shylock 4th = 5705 =, Aug. 15th, 1900. Jas. Robt, Kazabana, \$20.

L. Rogers, Weston, Ont., Weston Pride = 5592 =, Sept. 25, 1900. F. E. Caine, St. Andrews, N.B., \$11.

D. Drummond, Myrtle King = 5723 =, J. Beeg, Gravel Hill, Ont. \$10.

D. Drummond Myrtle King 2nd = 5724 =, Nov. 24, 1900. no Bright \$10, and two more, Myrtle King 3rd = 5725 = and Myrtle King 4th = 5726 =, to the same buyer for \$10 each.

YORKSHIRES—FEMALES.

J. G. Clark, Lottie = 5627 =, March 25, 1900. H. & G. Bennett, Sandringham, Ont., \$29.

J. G. Clark, Louise of Woodroffe = 5628 =, March 25, 1900. W. P. Mallory, Winchester, Ont., \$28.

J. G. Clark, Mollie = 5629 =, March 25, 1900. J. Kennedy, Apple Hill, \$27.

Brethour & Saunders, Oak Lodge, Miss Hollingsworth 7th = 5709 =, April 7 h, 1900. D. J. Campbell, Athol, Ont., \$31.

Brethour & Saunders, Clarissa 14th = 5677 =, June 10, 1900. Gilnour & Hughson, River Desert, \$24.

Brethour & Saunter, Miss Hollingsworth 8th = 5710 =, July 25, 1900. R. Reid & Co. \$19.

Brethour & Saunders, Miss Hollingsworth 9th = 5711 =, July 25, 1900. R. Reid & Co., \$12.

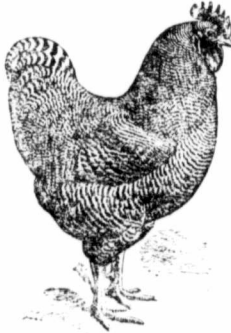
J. Drummond, Myrtle Lass 4th = 5722 =, Nov. 28, 1900. Jno. Scissons, South March, Ont., \$11.



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Eggs for hatching from high-class poultry. Ideal types of table fowl with great laying and exhibition qualities.

Barred and White Plymouth Rocks, Silver-Laced and White Wyandottes.

Selected matings from noted breeders in the United States and Canada, including A. C. Hawkins, Lancaster, Mass. Prices, \$1.00 and \$1.50 per setting. Liberal reduction on incubator lots.

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**AVERAGES.**

20 Shorthorn Bulls averaged \$135.75 each, and 10 females \$140 each, or 30 Shorthorns averaged \$137.16 each, totalling \$4115. 32 Ayrshires averaged \$46.87 each, totalling \$1,498. 3 Holsteins averaged \$36.33 each, totalling \$109. 68 cattle including 1 Hereford, 1 Jersey, and 1 Guernsey, averaged \$86.35 each, totalling \$5,872. 24 swine averaged \$16.25 each, totalling \$390, making a grand total for the sale of \$6,262.

**THE FEDERAL LIFE ASSURANCE COMPANY.**

The nineteenth annual statement of the directors, submitted at the annual meeting of the shareholders, is printed in another part of this paper. It speaks for itself, and indicates a prosperous year. About \$2,000,000 of new insurance was written, the number of policies issued bring 1,390. The income of the company materially increased, and its assets increased by \$211,430. There is now a surplus of security for policyholders over liabilities of more than a million dollars, and, exclusive of uncalled guarantee capital, the surplus which secures policyholders amounts to nearly \$150,000. The increase of \$1,000,000 in the subscribed capital was justified by the expansion of the business, and the fact that the new shares were taken at 40 per cent. premium is proof of the excellent standing of the company.

**Curious Facts.**

All moths produce some form of silk.

Seventy years ago there were no public libraries in America.

More than ninety per cent. of the Japanese public travels third class.

The River Jordan has its origin in one of the largest springs in the world.

Total number of patents granted in the last sixty-two years, 1,073,950.

The Eskimos of Alaska make water-proof boots and shirts of the skin of the salmon.

To carry a ton of wheat from Buffalo to New York in 1800 cost \$100; today it costs \$1.50.

The first strictly scientific college in the United States was the Rensselaer Polytechnic Institute, founded at Troy, N.Y., in 1824.

**R. C. W. LEGHORNS**

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**WHITE WYANDOTTES**

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Eggs from high-scoring stock, \$1 per setting

**S. C. BROWN LEGHORNS,** none better.

Color, shape, etc., right; 2 doz. cockerels, splendid birds, \$1 each. Eggs \$1 per setting.

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My birds won at Johnstown, N. Y., Ontario, Guelph, Woodstock, Stratford, Petrolia, Goderich. I believe I have as fine a lot of Buff Leghorns as were ever bred in Canada. Eggs \$2; two settings \$3; express paid.  
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Offer Eggs at \$2.00 per setting from the following varieties:—Light Brahmas Barred and White Rocks, Golden, Silver and Buff Wyandottes, Silver Spangled and Golden Pencilled Hamburgs, White and Buff Leghorns, Golden Seabright Bants, and White Crested Blk. Polish. See Poultry Notes in FARMING WORLD of March 12, descriptive of above.

**J. J. PICKARD,** Secretary.

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## PURE-BRED STOCK

### NOTES AND NEWS FROM THE BREEDERS

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

#### Horses.

r. Hogate, from Toronto, has again paid us a visit, and up to the present time has purchased four stallions, one Shire and three Clydesdales. The latter include Lord Hastings, a nice quality horse bought from Mr. John Crawford, Manrahead, Beith, Prince George (10402) and Handsome Robin (10201), bought from W. S. Park, Hatton Park, Bshopton.—*Scottish Farmer.*

Mr. William Riddick, Crookdale Hall, Aspatria, has sold the well bred Clyde-dale stallion, Life-Member (10080) to Messrs. Bowden & Macdonald, Exeter, Ont. This choicely-bred horse was bred by Mr. John Wallace, Skelton Pasture, Penrith, and was got by the dual Cawfor Cup champion horse Prince of Caruchan (8151), a son of the Mer-ryton Prince of Wales (673), and never beaten at any show at which he was exhibited since his first appearance in public at the II. and A. S. Show, Dundee, in 1890. The dam of Life-Member was got by the fine horse Baron Scott (1936), which bred useful stock in Penrith district. His grand-dam was got by the celebrated Samson (741), the sire of the dams of Darnley (222), Prince of Wales (673), and Old Times (579), and his grand-dam was by the noted horse Merry Tom (532), which won the Glasgow premium in 1854, and was one of the finest horses ever seen in Glasgow. Messrs. Bowden & Macdonald have got an exceptionally well-bred horse, and one with a good reputation as a stock getter.—*Scottish Farmer.*

#### Cattle.

On arriving at the home of Mr. W. C. Shearer, Bright, O., a few days ago, we found that he had not as yet returned from his Institute tour. Mr. Shearer is in such popular demand as an Institute speaker that he is usually kept at this work about three months each winter.

Mr. Shearer is managing a stock and dairy business on the old homestead, where his parents settled in the early days of Oxford county, when there was but little clearing around Bright, and the bears and wolves were numerous.

The stock of dairy cows are all high grade Jerseys, with a few pure-bred ones. The herd has been carefully selected for their performance at the milk pail.

At the time of our call they were just finishing up the evening milking. Each cow's milk was carefully weighed on a spring balance, and the amount carefully entered on a sheet ruled for each day of the week. At present Mr. Shearer is trying an experiment, and is breeding his calves to a pure bred Ayrshire bull of choice milking family. In this way he hopes to increase not only the milking qualities, but especially the size and constitution, of his cows. We might say here that some years ago, when on the farm of Mr. McCallum, of Dan Ile, P. Q., the writer had pointed out to him as the best cow of the herd a cross between a pure-bred Jersey cow and an Ayrshire bull.

At present Mr. Shearer is milking twelve cows, and is shipping to Toronto over a hundred pounds of butter per week, in addition to milk, cream, butter used in family, where he has a steady sale at good prices both summer and winter.

For feed, corn ensilage is the principal standby both summer and winter. At present the system of feeding is as follows: The first thing in the morning the cows are given a feed of uncut oat sheaves, cut green. Mr. Shearer thinks very highly of this feed, ranking it as nearly equal to clover. After milk-

ing, they are given a feed of ensilage and cut straw with the feed of meal on it. At noon they are given a light feed of mangolds. About four in the afternoon they are given ensilage and meal again, and at night a feed of straw. The meal feed consists of a mixture of corn, oats and bran, with a little oil-meal. The very complete water system in use provides water before the cows all the time.

In the dairy he has all the latest improved appliances, including a separator and power churn, which is driven by a tread power.

Mrs. Shearer is a well known prizewinner in butter-making at the Toronto, London and other chief exhibitions. A year ago she won fifty dollars in prizes for her butter at the Bradford Exhibition.

In hogs, Mr. Shearer has a few nice Tamworths, while he has a choice lot of Barred Rocks, large, robust birds of the National strain. At present he has sixteen nice cockerels on hand. His system of feeding poultry is as follows: In the morning they are given a warm, soft feed of table scraps, thickened with meal and bran, plenty of warm separator milk to drink, at noon a light feed of hot barley, at night another feed of hot barley. He prefers barley to any other grain, and is very particular to have all feed hot. The results in the egg basket prove the wisdom of this system.

#### Sheep.

United States importations of breeding sheep from Canada this year reach the handsome total of 7,262 head, or more than half of which duty was paid, in many instances to avoid the slow, interminable red-tape tangle, and in other cases because the sheep were ineligible to registration. Upwards of 202,000 sheep and lambs were imported into the United States from Canada this year for mutton purposes, the mature sheep paying the duty of \$1.50 per head and the lambs 75 cents per head. This seems a pretty heavy tax to pay for the privileges of the American market, but our Canadian farmers manage to pay it and prosper.—*Chicago Live Stock Journal.*

#### Poultry.

While in Brantford we visited the poultry yards of Mr. R. J. Taylor. This gentleman lives about two miles north of the city of Brantford. Mr. Taylor breeds white Plymouth Rocks and white-crested black Polish. He has two pens of white Rocks and one pen of Polish. Mr. Taylor claims that the Polish are the fanciers' favorite. Certainly they are a very attractive breed, with their pure white crest in contrast with their glossy black body. They are a very tame disposition breed, and are not high flyers, a fence 2 ft. high being sufficient to keep them in bounds. Most peo-

## Shorthorns

### SHORTHORN BULLS

Two choice Bulls about a year old

FOR SALE

JOHN McNAB,  
Rockwood, Ont.

### TWO SHORTHORN BULLS

—FOR SALE—

Also a few heifers

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### SHORTHORN BULLS

Four Bulls, eleven months old, and a few Heifers for sale. All eligible for registration in American Herd Book.

Also 25 Yearling Grade Rams, and 6 registered Cotswold Lambs.

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### SCOTCH SHORTHORNS

(100 head to select from)

Offer for sale 14 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee—28861—, at head of herd. Farm one mile north of town.

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Two first class young Pine-bred Polled Angus Bulls. Registered in American Aberdeen-Angus Herd Book.

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## SEED GRAIN

Lygowo Oats.

Headless Bailey Success.

As nice and clean to handle as wheat.

R. M. LEA,

Box 323.

Oakwood Farm, Gal.



### RIPPLEY'S COOKERS.

Sell from \$10.00 to \$45.00. Made of boiler steel. No flues to rust or leak. Can't blow up. Guaranteed to cook 25 lbs. feed in 2 hours, and to heat water in stock tanks 200 feet away. Will heat dairy rooms. Catalogue and prices mailed free. R. M. RIPPLEY HARDWARE CO., Box 216 (U.S. Pat. & Grafton, Ill.) London, Eng.

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Young Stock For Sale

A. ELLIOTT & SON, Ingleswood Farm  
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## GREEN RIVER BEND OF TAMWORTHS

Headed by first-class boar. Young stock for sale.

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C.P.R. G.T.R.

P. R. HOOVER & SONS

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**"VEGETABLE GARDENING" FREE**

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**NEW UNIVERSAL HAND SEEDERS and CULTIVATORS**

Suitable for rows, close of work.

MADE IN AMERICA

All styles. Only combination 1 and 2 wheel cultivator and drill made. Every way adjustable. All our tools have tough oak bent handles and are made of best material throughout. Popular prices. Send for catalog, describing a complete line, and valuable book.

**AMES PLOW CO., 32 Market St., Boston.**

ple imagine this to be a tender breed, but Mr. Taylor assures us that such is not the case, as they will stand as much cold as any other breed. We next visited Mr. Taylor's two pens of white Plymouth Rocks. Mr. Taylor has bred this variety for the last ten years, and has certainly some very fine birds. No yello or brassiness visible in his two pens of ten females and cockerel in each pen. Mr. Taylor claims for this breed that they are the best general purpose fowl. When asked why he considered them better than their cousins, the barred variety, Mr. Taylor says they are just as good layers, just as large in size, and are the same in every other respect, but when it comes to dressing them they do not exhibit the black pin feathers which show in the barred variety and all other dark-feathered breeds. Mr. Taylor is a market gardener and florist, and works two large places and six greenhouses. When asked if poultry paid he said: "Yes, if you keep good stock and let the people know about it by judicious advertising in some good paper of a rural character like 'FARMING WORLD.'" Through such an ad. Mr. Taylor sold all his surplus stock long ago this winter, and had many inquiries with nothing more to offer. He has again an ad. in this issue of eggs at \$1 per 13, believing at this reduced price to sell more freely to farmers and others than if he charged \$2 for them.

We found Galt a live business town, owing to the many large manufacturing establishments, but nowhere was this business energy shown to greater advantage than by the poultry men of the city. A drive of about four miles up the Cedar Creek road, which must be a beautiful drive in summer time, as it is lined nearly all the way on both sides by trees, principally pine, but at the time of our trip the blizzard of drifting snow rather obscured the beauty of the scene—this drive brought us to the Oakwood poultry yard of Mr. R. M. Lea, where he is breeding Golden Pheasants, barred Plymouth Rocks, black Minorcas, and rose comb Leghorns. The original stock of pheasants were obtained from Capt. Baultee, Paris, by whom they were imported. Mr. Lea has been very successful, having found a good demand for both birds and eggs. He finds them very hardy, easily raised, and the eggs hatch well under common hens. He has shipped a large number to different parts of the United States, as well as Canada. In Rocks he has the well-known national strain. This breed, in his opinion, makes the best farm fowl, and he reports an increasing demand for them. He would advise the farmer to confine his attention to the market fowl rather than show birds. From his experience he finds it necessary to have an incubator, and, as prices have now become so low, he would advise any farmer who is in the business for profit to have an incubator, as they are easily managed and very simple.

Mr. J. W. Porteous, of the Queen Street Poultry Yards, breeds barred Plymouth Rocks exclusively, as he considers them the best utility fowl we have, both as records, table use, or egg production. Mr. Porteous has selected yards for both pullet and cockerel matings. Eggs and birds from his yards have been sent to such distant places as Montreal and Vancouver, as well as principal intermediate points.

Mr. J. G. Hamilton, Galt, Ont., has been breeding Plymouth Rocks and black Minorcas for several years. He also adds his opinion

**A POULTRY PAPER FREE FOR ONE YEAR.**

Send us two new names for Review with the regular price of 50c. per year each, \$1 in all, and we will send you the Canadian Poultry Review for one year for yourself entirely free. Sample copies free for the asking. Best all poultry paper published. Practical, sensible, big staff of writers; a money maker.

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**ARTHUR JOHNSTON,**

**GREENWOOD P.O., ONT.**

Offers for sale at Moderate Prices:

- 11 Imported Bulls and Bull Calves.
- 36 Imported Cows, Heifers and Heifer Calves.
- 45 Home-bred Cows and Heifers.
- 13 Home-bred Bulls.

CATALOGUES ON APPLICATION.

R.R. Stations:

Claremont on the C.P.R.  
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22 Miles East of Toronto

**Lake View Farm**  
OSHAWA, ONT.



- 1 Bull, 11 months, Color Red.
- 1 Bull, 12 months, Color Red.
- 1 Bull, 10 months, Color Red.

All Shorthorns. These Registered bulls were sired by Grand Sweep, an imported bull and half brother to the noted British Statesman. He was got by Royal James. Terms on application.

**THOS. ALLIN & BROS.**  
Lake View Farm, OSHAWA ONT.

**OAK LODGE YORKSHIRES**



are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. CHAMPIONSHIP HERD AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS also 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

**BRETHOUR & SAUNDERS,**  
Burford, Ontario

**Dr. Hess' Stock Food**

Is a guaranteed flesh producer. It makes animals eat well, do well and pay well.

It produces that sleek, glossy coat that commands the fancy price.

Cows fed DR. HESS' STOCK FOOD give more and richer milk.



Make a test—your money back if it don't do what we claim.

- 7 lb. Sack ..... \$ .66
- 12 lb. Sack ..... 1.00

Sold by dealers generally, or address,

**The GREIG MFG. CO.**

Canadian Agents, Montreal.

For two-cent stamp we will mail you our 64-page veterinary book. Address,

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

**Pure-bred Ayrshire Imported Cattle.**

LARGEST AND MOST EXPENSIVE IMPORTATION IN AMERICA.



Beed for the dairy with grand constitution, and champion prize records awarded them in Scotland and England. Sweepstakes herd Montreal, Toronto, London, and Ottawa, in 1897; also Toronto, 1899. Awarded four years in succession herd prize at Ottawa's great exhibition, and special gold medal at Montreal, herd prize and W. W. Ogilvie's special \$100.00 prize. Their individual prize records are of the same distinguished honors as the four years of their exhibition career. Stock all ages for sale and at prices in reach of all.

Maple Grove  
Ayrshire Stock Farm  
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Line G.T.R.

R. G. STEACY,  
Importer and Breeder,  
Brockville, Ont.  
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A good FARM in Muskoka, 5 miles from Huntsville, 170 acres, 45 cleared, fit for machinery. Frame house, log barn and stables. R.R. siding on rear of farm, convenient for shipping timber, etc.

For further information, apply to—

**EDWARD BRAY, Kleinburg, Ont.**

150 Acres, half-mile from Royalton; Churches, High School and station, a fine two-storey house, 15 rooms, extra well finished, 3 barns, never-failing running water at the house and barns, 2 good orchards—a fine locality. Address E. W. W., Royalton, Vt.

**FOR SALE**

**FIFTY-ACRE FARM**

North half of lot 7, on 8th concession, Barton, two miles from Hamilton. House of seven rooms; barn, with store basement, cement floors. Five hundred plum and 50 apple trees; 10 acres wheat.

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We will cheerfully answer all questions, and most heartily welcome you to our farms, where where we are confident we can suit you with our remarkable list to draw from. Terms and blank forms for description upon application by mail or in person. We make absolutely no charge for commission unless we effect a sale. Send for Catalogue.

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### FARNHAM FARM

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All ages and sexes for Sale. Can spare a few ewes in lamb to imported Bryan.

HENRY ARKELL, - Arkell, Ont.



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

**SHAWANOO HILL FLOCK** . . . . . We breed for Mutton and Wool Have for Sale 40 ram lambs, 20 ewe lambs, a few breeding of Cotswolds ewes.

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The Modern Way to Destroy Sheep Ticks IS BY THE USE OF **INSTANT LOUSE KILLER**

It is not a dip, but a powder, that can be applied in zero weather. No slop, no muss, no danger.



In letting ticks sap the life out of your sheep during winter, and there is no longer any call for it. With **INSTANT LOUSE KILLER** the weather cuts no figure. Examine your sheep at once, and you will probably find ticks and lots of them. Don't wait on the weather, wait on the sheep with a package of **Instant Louse Killer**. Guaranteed.

Put up in one-pound packages, with perforated top, ready for use, very convenient. PRICE, 35 CENTS. Sold by dealers generally, or address

The Greig Manufacturing Co., Canadian Agents, Montreal

## Cheap

### Cattle and Hog Feed

Out dust, Barley Dust, Meal Seeds, etc. Can load either Grand Trunk or Canadian Pacific Rys. Quotations furnished on application to—

JAMES WILSON, Fergus, Ont.

Operating Monkland Mills, Broomfield Mills and Fergus Elevator.

to the weight of evidence to show that the Plymouth Rock is the special farmer's bird. Mr. Hamilton has always used the best blood and has a number of leading prize winners in his yard.

In feeding soft feed he only gives it to his birds three times per week. He thinks that many over-do the matter of soft feed by giving it every morning.

He is very particular in giving his birds frequent changes in grain feed. To have fertile eggs he says you must have clover or green food of some kind. Well saved clover hay cut short, steeped in water over night, and then mixed with soft feed he has found to give excellent results, as has also the preparation known on the market as clover meal.

For his soft feed he uses equal parts of bran and shorts.

Other Galt poultry breeders are Mr. C. A. Pullen. (See adv. for varieties), Mr. Richard Kennelson, barred Plymouth Rocks and silver spangled Hamburgs, and the High Park Bantam yards of Mr. L. T. McGivern.

The Dumbo Poultry yards contain the following varieties, light Brahams, Wyandottes, Plymouth Rocks, silver spangled and golden penciled Hamburgs, black Minorcas, white-crested black Polands, white Leg-horns and golden seabright Bantams.

These pens contain a number of prize winners at the principal exhibitions as will be seen by the following: One silver-laced Wyandotte cock won at every place he was shown—Hamilton, Woodstock, Brantford, Goderich and Petrolia. At Goderich their black Minorcas reached the high score of 92 and 93. Their white-crested Poland cockerel won first at Hamilton and Woodstock, while at Goderich their birds of this breed won two firsts and a second.

This young firm has been very successful at all the principal exhibitions, having won a large number of prizes which we have not space to enumerate.

Their system of winter feeding is as follows: First feed in the morning is a mixture of oat-meal, corn meal and middlings, with a little poultry spice added. This is fed in the form of a soft warm mash. At noon they are given a feed of whole wheat, at night they are given a feed of warmed corn before going to roost. The fowls are kept well supplied with vegetables such as cabbages and roots and raw meat cut fine. Along the walls are ranged small boxes containing a mixture of oyster shells, crystal grit and bone meal. This system of feeding has produced wonderfully good results in the laying qualities.

They tell this story in Lee county of a negro who applied to a justice of the peace to marry him. He had no money and offered a string of fish as the fee.

After a year had passed the justice met the man and said:

"Well, William, how do you like married life?"

"Well, suh," was the reply, "I wish to de Lord I'd eat dem fish!"—*Atlanta Constitution*.

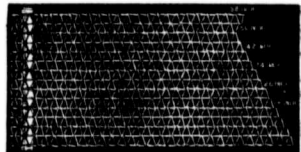
### YORKSHIRES and BERKSHIRES

Bears fit for service. Sows both breeds, three months old. Boars fit for service. Sows ready to breed. Sows safe in pig. All stock of the large lengthy smooth type, and registered. Correspondence Solicited.

JAMES A. RUSSELL, Precious Corners - Ontario

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We will send the CANADIAN POULTRY REVIEW three years for \$1, or to three subscribers one year for \$1. Special departments for "Turkeys, Ducks and Geese," "Poultry Ailments," "Bantams," "Incubators and Brooders," "Practical Poultry," (under charge of A. G. Gilmer, Manager Poultry Department, Government Farm, Ottawa), etc. New illustrations, critical show reports, 40 to 48 pages monthly. Single copy 5c. Address, Toronto, Ont.



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fenced with them this year. The fences that grow more popular every season. Real saving, service and satisfaction in **Ellwood Steel Wire Fences** Fully guaranteed. Best steel and galvanizing. If you can't find our local agent write to American Steel & Wire Co., Chicago or New York.

## Cheese and Butter

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

### "RIOLE'S" DAIRY SALT

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

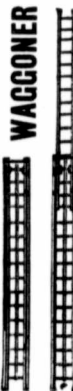
R. & J. RANSFORD, Clinton, Ont.

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



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



### Extension Ladder

Light, Strong, Convenient and Cheap.

Port Colborne, April 10, 1900. Dear Sir,—Have you an agent down here for your goods? The ladder I got from you seems to take with the public, and I wish you would send agents' prices so if I can do anything I will take it up or let them know who your agent is.

L. TURNBULL. (See our ad. in last and next week's issues.)

For stacking, or for picking apples, and for general use about the farm the WAGGONER LADDER is unequalled. Made in all lengths.

Ask your local Hardware Merchant for our goods. Or write for catalogue (free) to The Waggoner Ladder Co., Limited, LONDON, ONT.



# Market Review and Forecast

Office of THE FARMING WORLD,  
Confederation Life Building,  
Toronto, March 11, 1901.

Trade prospects are good, and the outlook for a big spring trade is good. Retailers are beginning to send in orders liberally, and the outlook is bright. Money is quoted as steady at 4½ to 5 per cent. on call, and discounts on mercantile paper 6 to 7 per cent.

#### Wheat.

The general trend of the wheat market shows little change. The condition of the growing crop is now the important factor, and the bulls are making as much of it as they possibly can. Rumors of serious damage in some sections by the Hessian fly are also current in the States. While these may affect speculation somewhat, they do not appear to affect legitimate trade very much. There is a rumor that the Chicago elevator ring is quietly concentrating May holdings. If so, we may look for a spurt in prices later. The situation of the week is well summarized by *Prices Current* as follows:

"There has been very little change in the wheat market situation. There is very little speculative interest, but there is a fairly good cash business. This has resulted in a slight decrease in the price of future options during the week, although cash prices have slightly advanced in nearly all markets. However the range of fluctuations was exceedingly narrow. The primary movement of wheat continues to be of fairly liberal proportions, and in the Northwest especially, where a short crop was expected by many, receipts are not very much short of last year. There is nothing in the present situation to warrant any material change in prices. If the growing winter wheat crop in this country and abroad passes through the next six weeks without injury prices will probably be depressed, but, on the other hand, any material damage to the crop, either in this country or in Europe, will no doubt have a stimulating effect. The crop situation, therefore, will be the chief feature of interest during the next few weeks."

The local markets have ruled steady during the week. It is reported that the Manitoba wheat now in stock will be wanted for milling purposes. Red and white are quoted at 64½c. north and west, and dealers here quote 65½ to 66c. middle freights. Goose is quoted at 65 to 66c. east, and spring wheat at 68c. east. On Toronto farmers' market red and white bring 68½c., goose 65c., and spring fine 70c. per bushel.

#### Oats and Barley.

Oats have ruled steady. Stocks are reported light and higher prices are looked for later. Oats are quoted here at 29½c. east for No. 1 and 28½ to 29c. for No. 2 middle freights. On Toronto farmers' market oats bring 34½c. per bushel.

The barley market keeps steady under a good export market. At Ontario points barley is quoted at 42 to 43c. as to quality. On the farmers' market barley brings 46c. per bushel.

#### Peas and Corn.

The market for peas has undergone little change. They are quoted at 62½ to 63c. west and 63 to 63½c. middle freights. On Toronto farmers' market peas bring 65c. per bushel.

There is little change in the corn market. There is a fairly liberal movement in the west, but it is still rather firmly held in the country. Ontario yellow is quoted at Montreal at 48c. and American mixed at 49½ to 50c. American is quoted here at 45½ to 47c. Toronto for No. 3 yellow.

#### Bran and Shorts.

Ontario bran in bulk is quoted at Montreal at \$17 to \$17.50 and shorts at \$18 to \$18.50 for car lots on track. City mills here sell bran at \$16 and shorts at \$17 in car lots f.o.b., Toronto. Shippers' quotations west of here are \$15 to \$15.50 for shorts and \$14 to \$14.50 for bran in car lots.

#### Eggs and Poultry.

The egg market is easier and supplies of new-laid are becoming more plentiful. Quotations for these at Montreal are 18 to 19c. in

case lots, which is a decline of 1 to 2c. on the week. Supplies are more plentiful here and the demand was only fair and the market barely steady at 17c. for new-laid in a jobbing way. On Toronto farmers' market new-laid bring 18 to 20c. and held stock 14 to 16c. per dozen.

There has been a fairly good demand at Montreal for dressed poultry during the week, and values keep firm. Choice turkeys are quoted at 9c. to 10c.; chickens, 8c. to 9½c.; ducks, 7½c. to 9c.; and geese 6c. to 7c. per lb. in a jobbing way. Prices here are largely nominal. Turkeys are quoted at 11c. to 12c., geese at 7c. to 8c. per lb., and chickens at 50c. to 80c. per pair; on Toronto farmers' market chickens being 50c. to \$1.25, and ducks 90c. to \$1.25 per pair, and turkeys 11c. to 14c., and geese 8c. to 10c. per lb.

#### Potatoes.

There is said to be large quantities of potatoes in Ontario to sell. Montreal quotations are 38c. to 40c. per car lots on track. Car lots here are quoted at 29c. to 31c. on track. On the farmers' market potatoes bring 30c. to 35c. per bag.

#### Hay and Straw.

The Government is reported to be purchasing 6,000 to 8,000 tons of hay for South Africa, which has raised prices too high in the country to do business. Though a lot of hay has been shipped out of the country, there is thought to be a lot of hay still in farmers' hands, who are holding it for higher prices. At country points east, No. 1 baled hay is quoted at \$10 to \$10.50, and No. 2 at \$8.50 to \$9.50. Montreal quotations are \$11 to \$11.50 for No. 1, \$9.50 to \$10.50 for No. 2, and \$8.50 to \$9 for clover.

The market here is active and steady at \$10 to \$10.50 for No. 1 and \$9 to \$9.50 for No. 2 in car lots on track. Baled straw is quoted at \$5.50 to \$6 for car lots on track, Toronto. On the farmers' market here hay brings \$14 to \$16, sheaf straw \$9 to \$10, and loose straw \$6 per ton.

#### Seeds.

The *Trade Bulletin* has the following report of the Montreal seed market: The demand is fair, and prices remain steady. Red clover firm at \$7 and \$9 per bushel, as to grade, and several lots have gone forward to England via Portland and Boston last week. Alsike clover firm at \$7 to \$9 per bus. Timothy seed steady at \$2.50 to \$3 per bus. Flaxseed \$2 to \$2.25 per bus. The above quotations are the selling prices in Montreal.

#### Apples.

The supply of apples in the country is light and prices are high. \$3.50 to \$4 per barrel

are the quotations at Montreal for car lots. On Toronto farmers' market apples bring \$1.50 to \$3.50 per bbl.

#### Cheese.

The cheese market continues quiet and holders are inclined to accept lower values. Montreal quotations are 9½c. to 9¾c. for fine-aid and 9 to 9¼c. for under grades.

The total shipments for the season from Canada via Montreal, St. John and Portland were as follows to date:

|       |       |           |            |
|-------|-------|-----------|------------|
|       | 1900  | 1901.     | 1899-1900. |
| Boxes | ..... | 2,347,016 | 2,251,388  |

This shows an increase of 95,628 boxes over those of last season.

#### Butter.

The *Trade Bulletin* sums up the butter market of the week as follows: The market closes quiet at about former quotations, with some difficulty experienced in securing outside quotations. Although more money has been obtained since our last report, 22½c. is the very top that could be had to-day for finest creamery in lots to jobbers, sales being reported of over 150 tubs and boxes in lots of 15 to 25 tubs at 22 to 22½c. A lot of 18 boxes of strictly fresh fancy creamery bringing 22½c. A lot of Manitoba creamery showing excellent body and perfectly sweet, sold at 21c. The only fault with this lot was that it was a little too salty. Another lot of Manitoba creamery sold at 20½c. In dairy butter the principal sales reported to us were Manitoba, of which there is one or two cars here yet, and sales have been made at 15 to 17c. as to quality. Commission houses inform us that they are selling creamery that has been put into their hands by exporters, which seems to bear out the opinion expressed by us some time ago, that there were more stocks held here than was generally supposed. Receipts continue very light, and the question is, where do supplies, which seem ample, come from? We notice that 724 pkgs. were shipped to England during the past week, and 8,646 pkgs. from New York, which is somewhat surprising. The following are the exports for the season from Canada from May 1, 1900, to date:

|          |            |            |
|----------|------------|------------|
|          | 1900-1901. | 1889-1900. |
| Packages | .....      | 281,189    |
|          |            | 483,382    |

The above shows the large decrease of 202,193 pkgs.

Creamery butter is easier here. Prints are selling for 22 to 23c. and tubs or boxes at 20 to 21c. in a jobbing way. Stocks of dairy butter are reported large, pound rolls selling fairly well at 17 to 18c. and large rolls at 16 to 17c. On Toronto farmers' market lb. rolls bring 19 to 22c. and large rolls 18 to 20c. per lb.

## Poultry Netting Is Our Specialty

We are headquarters for it. If you need **one yard or one thousand yards**, get our prices. You'll find them the **lowest**. Your inquiries for prices on **Poultry Netting, Barb Wire, Binder Twine, Hardware, Paints, Oils and General Housefurnishings** will receive our prompt and best attention.

**Russill's in the Market**  
159 King St. East, Toronto

Where prices are always the lowest.

**Cattle.**

The general tone of the cattle situation remains about the same. The leading American markets have barely ruled steady for prime cattle. The run of live stock on Toronto cattle market on Friday was 846 cattle, 1,000 hogs, 100 sheep and 30 calves. The quality of the shipping cattle offered showed some improvement. There is still a scarcity of choice, well-finished butchers' stock. Trade was fair in most classes, and there was little change excepting in exporters, which were a little weaker, the bulk of which sold for \$4.50 to \$4.75, with a few choice lots going 10 to 15c. per cwt. higher.

**Export Cattle.**—Choice loads of these are worth from \$4.60 to \$4.90 per cwt. and light ones \$4.00 to \$4.50 per cwt. Heavy export bulls sold at \$3.85 to \$4.25 and light ones at \$3.40 to \$3.60 per cwt.

**Butchers' Cattle.**—Choice picked lots of these, equal in quality to the best exporters, weighing 1,000 to 1,100 lbs. each, sold at \$4.25 to \$4.35 per cwt., good cattle at \$3.40 to \$3.75, medium \$3.15 to \$3.30, and inferior to common at \$2.40 to \$3 per steers.

**Feeders.**—Heavy, well-bred steers, from 1,000 to 1,150 lbs. each, sold at \$3.60 to \$3.80 and other quality at \$3.40 to \$3.60 per cwt. Light steers, weighing 800 to 900 lbs., sold at \$3.35 to \$3.50 per cwt.

**Stackers.**—Yearling steers, 500 to 600 lbs. each, sold at \$3 to \$3.25, off colors, and inferior quality at \$2.25 to \$2.50 per cwt. Yearling hulls, 600 to 900 lbs. each, sold at \$2 to \$2.50 per cwt.

**Calves.**—There is a weaker demand at Buffalo, choice to extra bringing \$6.50 to \$7.25 per cwt. At Toronto market calves bring \$3 to \$10 each.

**Milch Cows.**—These sold at from \$25 to \$47 each. Choice cows would bring more money.

**Sheep and Lambs.**

Prices were easier on Friday for sheep at \$3 to \$3.50 for ewes and \$2.50 to \$3 per cwt. for bucks. Grain-fed lambs sold at \$4 to \$4.50 and barnyards at \$3.50 to \$4 per cwt. The Buffalo market was reported stronger on Friday at \$5.60 to \$5.70 per cwt. for choice to extra lambs, and \$4.75 to \$5 for choice to extra sheep.

**Hogs.**

As we intimated last week hogs took a drop to \$6.50 per cwt. for select bacon hogs, and \$6 for light and thick fats. Unculled car lots sold at \$6.25 to \$6.35 per cwt. It is generally believed that lower prices are coming. Deliveries of hogs have been light, and packers have not been able to get enough to keep things going. In order to get hogs they are said to have been paying more than the hogs were worth, and are determined now to get prices down to a paying basis.

The Wm. Davies Co., Toronto, will pay \$6.37½ this week for select bacon hogs, and \$5.75 for light and thick fats.

At Montreal the market is lower at 6½c. per lb., as against 5½c. last year. The *Trade Bulletin's* London cable of March 7 re Canadian bacon reads thus:

"There is very little change in the market for Canadian bacon, stocks being light, and holders are conservative in their offerings. No. 1 Canadian, 57s. to 62s.; No. 2, 52s. to 58s.; fat and stout, 50s. to 54s."

On Toronto farmers' market dressed hogs bring \$7.75 to \$8.25 per cwt.

**Horses.**

At Montreal prices are reported to be in favor of buyers, with the supply of heavy draughts, carriage and light roadsters ample for all requirements. There are quite a lot in farmers hands, but they ask too high prices to admit of any great movement. A few light roadsters have sold all the way from \$65 up to \$120. Heavy draught horses range from \$120 to \$220, sales having been made at within that range, a dark brown heavy mare, five years old, with good points, realizing \$180, and one not quite as heavy sold at \$150. Carriage horses have been enquired for, sales of which are reported at from \$150 to \$220 each. Common hacks have sold at \$15 to \$20 each.

There was very little business done at Grand's last week, and trade was dull. The big sale of thoroughbreds on Tuesday of this week is arousing considerable interest, and should be largely attended.

# The Federal Life Assurance Co.

—OF CANADA—

The nineteenth annual meeting of the shareholders of this company was held at its head office in Hamilton on Thursday, the 7th instant. In the absence of the president, through illness, Mr. William Kerns, vice-president, was appointed chairman and Mr. David Dexter, secretary.

**DIRECTORS' REPORT**

The directors presented their annual report, as follows: Your directors have the honor to present the report and financial statement of the Company for the year which closed on the 31st December, 1900, duly vouched for by the auditors.

The new business of the year consisted of fourteen hundred and forty-two applications for insurance, aggregating \$2,094,735, of which thirteen hundred and ninety applications, for \$1,995,985, were accepted; applications for \$98,750 were rejected or held for further information. As in previous years the income of the company shows a gratifying increase, and the assets of the company have been increased by \$211,430.12, and have now reached \$1,271,340.92, exclusive of guarantee capital.

The security for policyholders, including guarantee capital, amounted at the close of the year to \$2,149,055.92, and the liabilities for reserves and all outstanding claims, \$1,123,738.07, showing a surplus of \$1,025,317.85. Exclusive of uncalled guarantee capital, the surplus, to policyholders was \$147,602.85.

Policies on sixty-five lives became claims through death, to the amount of \$164,507.98, of which \$18,500 were re-insured in other companies.

Including cash dividends and dividends applied to the reduction of premiums, \$23,079.28, with annuities, \$2,929.56, the total payments to policyholders amounted to \$170,813.58.

Careful attention has been given to the investment of the company's funds, largely on mortgage securities and loans on the company's policies, amply secured by reserves. These investments have yielded results better than the average results of insurance companies doing business in Canada.

Expenses have been confined to a reasonable limit, consistent with due efforts for new business.

The field officers and agents of the company are intelligent and loyal, and are entitled to much credit for their able representation of the company's interests. The members of the office staff have also proved faithful to the company's service.

Having decided to increase the guarantee or subscribed capital to \$1,000,000, the amount authorized by our act of incorporation, your directors issued on 12th November last the balance to and taken by the existing shareholders. These shares were allotted in bi-monthly instalments, the greater portion of it was paid before the close of the year.

The assurances carried by the company now amount to \$12,176,282.20, upon which the company holds reserves to the full amount required by law, and, in addition thereto, a considerable surplus, as above shown.

JAS. H. BEATTY, President.

DAVID DEXTER, Managing Director.

**AUDITORS' REPORT**

To the President and Directors of the Federal Life Assurance Company: Gentlemen: We have made a careful audit of the books of your Company for the year ending 31st December, 1900, and have certified to their correctness.

The securities have been inspected and compared with the ledger accounts and are found to agree therewith.

The financial position of your Company, as on 31st December, is indicated by the accompanying statement.

Respectfully submitted,  
Hamilton, 1st March, 1901.

H. S. STEPHENS,  
J. J. MASON, Auditors.

**FINANCIAL STATEMENT, 1900**

|                         |               |
|-------------------------|---------------|
| Premium income.....     | \$ 413,794 76 |
| Interest and rents..... | 50,414 21     |
| Capital stock.....      | 31,285 00     |
| Premium on stock.....   | 15,600 00     |

|  |               |
|--|---------------|
| Paid to Policyholders for Death Claims—                  | \$ 511,093 97 |
| Endowments, surrender values and profits.....            | 170,813 58    |
| Expenses, taxes, dividends and reinsurance premiums..... | 146,552 35    |
| Balance.....   | 193,728 04    |

**ASSETS, DEC. 31, 1900.**

|                                       |               |
|---------------------------------------|---------------|
| Debitures and bonds.....              | \$ 511,093 97 |
| Mortgages.....                        | 117,752 59    |
| Loans secured by policy reserves..... | 626,464 83    |
| Cash in bank and other assets.....    | 237,314 69    |
|                                       | 289,808 81    |

**LIABILITIES.**

|   |                  |
|---|------------------|
| Reserve Fund.....   | \$ 1,271,340 92  |
| Claims unadjusted.....  | 1,073,902 67     |
| Present value of claims paid by instalments not due.....                    | 25,932 37        |
| Present value of dividends applied on temporary reductions of premiums..... | 13,889 95        |
| Surplus.....  | 10,013 08        |
|   | 147,602 85       |
| Guarantee capital.....  | \$ 1,271,340 92  |
|   | 877,715 00       |
| Surplus security.....   | \$ 2,149,055 92  |
| Policies were issued assuring.....  | \$ 1,995,985 50  |
| Total assurance in force.....   | \$ 12,176,282 20 |

On motion of Mr. Kerns, seconded by Mr. T. H. Macpherson, the report was adopted. The Medical Director, Dr. A. Woolverton, presented an interesting statistical report of the mortality of the company for the past and previous years. The retiring Directors were re-elected, and at a subsequent meeting of the Board, Mr. James H. Beatty was re-elected President, Lieut-Col. Kerns and Mr. T. H. Macpherson Vice-presidents.

## Big Strawberries

150 plants, post-paid, for \$1.00. Send for list. N. E. MALLORY, Blenheim, Ont.

**TREES** Best and cheapest.  
Descriptive price list free.  
Drop me a card and get one.

A. W. GRAHAM,  
St. Thomas, Ont.

## RELIABLE SEEDS!

For Farm and Garden

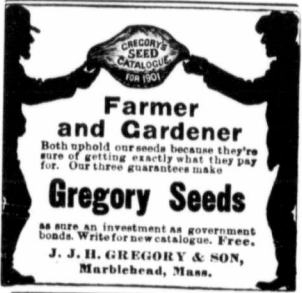
OUR stock includes all that is best in Garden and Field Roots, Flower Seeds and Flowering Plants, Grasses, Clovers and Seed Grain.

Illustrated Catalogue mailed free on application.

**W. EWING & CO.**

Seed Merchants  
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**CABBAGE SEEDS AND PLANTS** of undoubted purity and excellence. Pedigreed stock. Price-list Free. Tillinghast Seed Co., La Plume, Pa.



**Farmer and Gardener**  
Both uphold our seeds because they're sure of getting exactly what they pay for. Our three guarantees make  
**Gregory's Seeds**  
as sure an investment as government bonds. Write for new catalogue. Free.  
J. J. H. GREGORY & SON,  
Marblehead, Mass.

## TREES TREES TREES

We have a full line of Fruit and Ornamental TREES for Spring, 1901, at lowest possible prices.

HEADQUARTERS FOR PACKING DEALERS' ORDERS

Farmers wishing to buy first-class stock, absolutely **First Hand and without paying commission to agents** should write to us at once for a catalogue and price list. Don't wait until the last minute, as you will be disappointed. Place orders early and secure the varieties you want. Correspondence Solicited.

WINONA NURSERY CO., Winona, Ontario

## INDIAN CORN

| NAME OF VARIETY.             | Ottawa, Ont.        |                     | Nappan, N.S.        |                     | Brandon, Man.       |                     | Indian Head N.W.T.  |                     | Agassiz, B.C.       |                     | Average of all Farms. |  |
|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|--|
|                              | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs. | Per acre. Ton. Lbs.   |  |
| <b>RED COB ENSILAGE</b>      | 24 1170             | 18 300              | 27 1440             | 14 4964             | 33                  |                     |                     |                     |                     |                     | 3 375                 |  |
| Early Mastodon               | 24 1069             | 21 1450             | 27 120              | 8                   | 704                 | 29                  | 1400                | 22                  |                     |                     | 558                   |  |
| Chief's Early Yellow         | 24 -73              | 12 1850             | 27 1000             | 12                  | 420                 | 25                  | 1400                | 29                  |                     |                     | 1440                  |  |
| <b>GIANT P. ENSILAGE</b>     | 22 1100             | 16 1550             | 25 380              | 15 492              | 38 450              |                     |                     | 23 119              |                     |                     |                       |  |
| Evergreen Sugar              | 21 134              | 12 970              | 24 1940             | 12 552              | 28                  |                     |                     | 19 1780             |                     |                     |                       |  |
| Rural Thoro. W. Flint        | 21 906              | 11 550              | 14 190              |                     | 540                 | 16                  | 1000                | 13 1880             |                     |                     |                       |  |
| Champion W. Pearl            | 20 247              | 16 1220             | 21 1560             |                     | 1264                | 25                  | 1760                | 20 1710             |                     |                     |                       |  |
| Saunder                      | 20 113              | 20 1800             | 23 200              |                     | 1720                | 22                  | 1100                | 20 180              |                     |                     |                       |  |
| <b>SELECTED LEAMING</b>      | 19 1380             | 14 1150             | 19 1160             | 13 796              | 22 220              |                     |                     | 17 1641             |                     |                     |                       |  |
| Pride of the North           | 19 94               | 15 135              | 24 1500             | 9 742               | 99                  | 80                  | 19 1322             |                     |                     |                     |                       |  |
| <b>WHITE CAP YELLOW DENT</b> | 19 470              | 17 1200             | 28 1200             | 12 1740             | 25 160              |                     |                     | 20 1294             |                     |                     |                       |  |
| Extra E. Haron Dent          | 18 118              | 15 1020             | 23 200              | 11 57               | 25 1920             | 18                  | 1773                |                     |                     |                     |                       |  |
| Mammoth Cuban                | 18 80               | 16 1770             | 20 1800             | 9 216               | 20 1800             | 17                  | 333                 |                     |                     |                     |                       |  |
| King of the Earliest         | 17 1309             | 17 100              | 19 940              | 10 968              | 24 1000             | 18                  | 1603                |                     |                     |                     |                       |  |
| Mam. Eight-rowed Flint       | 16 1440             | 16 1770             | 24 110              | 8 236               | 22 1250             | 17                  | 333                 |                     |                     |                     |                       |  |
| North Dakota White           | 15 1240             | 16 1770             | 22 110              | 8 236               | 22 1250             | 17                  | 333                 |                     |                     |                     |                       |  |
| Longfellow                   | 14 1392             | 17 650              | 23 1080             | 10 1384             | 19 1600             | 17                  | 526                 |                     |                     |                     |                       |  |
| Pearce's Prolific            | 14 1113             | 17 1200             | 25 600              | 9 1800              | 24 1000             | 18                  | 742                 |                     |                     |                     |                       |  |
| Angel of Midnight            | 14 1000             | 16 450              | 24 1720             | 11 1322             | 21 900              | 17                  | 1472                |                     |                     |                     |                       |  |
| Compton's Early              | 13 180              | 16 1550             | 25 1700             | 14 1528             | 24 1500             | 19                  | 99                  |                     |                     |                     |                       |  |

It does not always pay to plant the cheapest seeds. The above varieties in large type speak for themselves. They are handled by

**E. R. ULRICH & SONS, SPRINGFIELD, ILL., U.S.A.**

Ask for their Seeds when buying

## FOUR HEAVY CROPPERS.

### NEW GRAIN SPELTZ.

Claimed to yield 80 to 100 bushels of richer food than Corn, besides giving as much as 4 tons of good hay per acre. Speltz is best described as a combination of Wheat, Rye and Barley, and for fattening Cattle, Poultry, Horses, Sheep, Pigs, etc., is equal to other grains. Heads similar to two-rowed Barley. Is not easily injured by the weather and will produce enormous crops on poor soil. (Sow 1 1/2 bushels per acre.) Every farmer should try it. Pound 25c.; 3 lbs. 60c., by mail postpaid. Peck (14 lbs.) 80c.; 1/2 Bus. (28 lbs.) \$1.40; Bushel (56 lbs.) \$2.50, by freight at purchaser's expense.

### NEW WHEAT AMERICAN BLUE STEM.

The heaviest yielding wheat of the Northwestern States. Free from rust. Millers pay more for it than any other sort. Heads bald and beautiful grain of a dark amber shade. Every bushel sown this season will be required next year for seed at high prices. Pound 20c.; 3 lbs. 50c., postpaid. By freight, at purchaser's expense—Peck 60c, bushel \$2.00; 2 bushels at \$1.90.

Cotton Bags, each 18 cents.  
Remit cash with order.

**WM. RENNIE, TORONTO.**



### DANISH SUGAR BEET.

The only true seed of this Famous Root—Grown in Denmark—can be procured direct from us. Recommended by the leading agriculturists of this country as the best Field Root for all purposes. For Cattle, Horses, Sheep, Hogs and Poultry. It is a well-known fact that the famous Danish Bacon is from pigs fed largely on this Sugar Beet. Grows well out of the ground and can be harvested as easily as any Mangel crop. A wonderful yielder. Try our New Danish grown seed, tested for purity and germination. 1/2 lb. 20c, lb. 35c.; 5 lbs. \$1.50, postpaid.

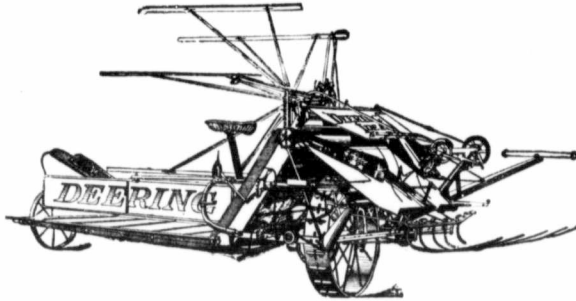
### NEW CORN NORTHERN PROLIFIC.

Ripens in 90 days and yields surprisingly large quantities of Corn on such small cobs. The beautiful rich golden colored grain is of smooth even size from the butt to the tip of ear. Without exception, this is the most profitable Corn to plant, whether for grain or for ensilage. Try it, and you will be pleased. Lb. 20c.; 3 lbs. 50c., postpaid. By freight, at purchaser's expense—Peck 50c.; 1/2 Bus. 90c.; Bus. \$1.50.

Cotton Bags, each 18 cents.  
Remit cash with order.

**WM. RENNIE, TORONTO.**

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DEERING  
IDEAL  
BINDER,

Five, Six, Seven  
and Eight Feet.

Lighter draft, more durable, and easier to operate than any other binder. The Binder that will cut and handle any grain that grows.

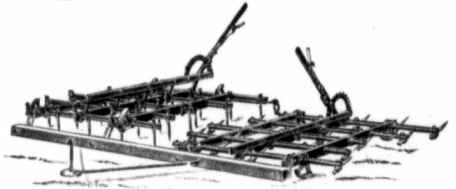
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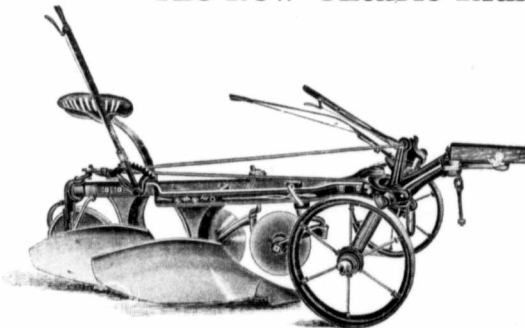
BRANCH HOUSES : TORONTO. LONDON. MONTREAL. WINNIPEG

## The Celebrated "U" Bar Spike Tooth Harrow

This Harrow in lightness and strength eclipses all others in the market. It is manufactured in a strictly first class manner throughout, and is provided with levers for regulating the slant of the teeth (as shown above) and clearing the teeth of any obstructions, and by means of these levers the teeth can be raised from the ground, allowing the harrow to rest on shoes which makes it very convenient for transportation purposes.



## The New Ontario Riding Plow, No. 8.



This is a Double Plow, used for general purposes and cutting two furrows from 9 to 12 inches as desired and can easily be regulated for sod or stubble.

It can be worked with three horses in any ordinary soil, and often where the soil is light by two.

With this Plow land can be marked out as easily as can be done with any Walking Plow.

Land can be marked out at any required depth, and finished with the same certainty as with a Walking Plow and with greater ease.

Any boy (or girl) who can drive a team can do perfect work with this plow.

Send for catalogue and circulars of Riding, Walking and Gang Plows, Corn Harvesters, Harrows, Cultivators, Self Dumping Scrapers, etc., etc.

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