

The Farming World

A PAPER FOR
Farmers and Stockmen

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FEBRUARY 27th, 1901
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The Farming World

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SPECIAL POULTRY NUMBER
March 12th.

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Copy for advertisements for that issue should be in this office by March 5th.

DAIRYMEN
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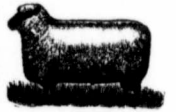
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The Farming World

For Farmers and Stockmen

VOL XVIII

FEBRUARY 5th, 1901

No. 23

IMPROVING ALL THE TIME

J. A. Dyer, St. Catharines, Ont., writes of date Jan. 15th as follows:—"Enclosed you will find one dollar for your valuable paper. I take about ten papers or farm journals, but I always look for THE FARMING WORLD. I think it is improving all the time. It is up-to-date and to the point."

The Canadian Horse Trade

THIS is breeders' week in Toronto. Owning, however, to the Ayrshire breeders holding their meeting East this year, and the decision of the Short-horn Breeders to meet at Guelph at the time of the auction sale, the number of meetings has been reduced to those of the Horse breeders and the Holstein-Friesian cattle breeders. These meetings should be largely attended. The demand for good stock is growing in this country, and those who are supplying it should take advantage of every opportunity to discuss ways and means of developing trade and improving quality.

No industry in the live stock line needs more attention at the present time than horse breeding. While the demand for first-class saddle, carriage, military and heavy draft horses has increased easily one hundred per cent. during the past year or two, the supply of these classes in the country has increased very little, if it has not decreased. According to returns compiled by "The Gazette," regarding the export trade of the port of Montreal for 1900, regular shippers of horses found it very difficult last year to secure the right class at a reasonable figure, on account of the Imperial Government buying up from 3,000 to 4,000 horses early in the season for South Africa, for which good prices were paid. This left the market bare of useful animals, and the farmers who were fortunate enough to have any such stock on hand later in the season, demanded high prices. For this and other reasons the exports for the season showed a marked decrease as compared with those of a year ago. The figures being 2,832 for 1900 as compared with 4,739 horses exported in 1899.

The trade has been hampered in one or two ways rather seriously. The shipper, in addition to having to pay a higher price to the farmer

for his purchases, had to meet a largely increased ocean freight rate, it ruling at 80s. per head during the season, or £1 per head higher than the year previous. On account of the large shipments of American horses values at some of the foreign markets were greatly depressed at various times during the season. The shipments from Montreal were chiefly to London and Glasgow, and it is reported that the returns on the whole were unsatisfactory to shippers. On the other hand, reports from Liverpool were more encouraging, good prices were realized, and the shippers made money. The bulk of those sent to London sold at prices ranging from £20 to £35 each, with some going as high as £80 to £100 for really fancy carriage or fast trotting horses. One dealer stated that he had shipped a number of horses to Liverpool the past season for which he received from £38 10s. to £55 5s. for heavy horses weighing between 1800 and 1900 lbs., and £28 to £32 for busses.

But, notwithstanding these drawbacks, the outlook for really first-class horses of the right type is good, with prospects for prices fair. As noted in our market reports last week, a gentleman from London, England, Mr. Geo. Chapman, said to be one of the best whips in the world, has been in Toronto for some days buying horses for coaching purposes and good-sized carriage horses. As spring approaches the demand will be greater, the only drawback to greatly extended trade being the scarcity of really first-class horses of the right type.

The need of the industry at the present time is more systematic and careful breeding of horses by our farmers. Heretofore there has not been that continuity of breeding necessary to produce horses of the right type and in sufficient numbers to attract buyers. The farmer must select the type of horse that will suit his tastes and conditions, bearing in mind, of course, the kind for which there is the largest demand, and breed to that type by choosing sires and dams suitable for the purpose. System, continuity, and practical knowledge of the requirements of the market are the essentials to successful horse-breeding, and we believe there is good money in the business for the farmer who gives it his best attention. There are encouraging signs of improvement in this direction, however, and a year or two will see

a good supply of first-class horses ready for market. One of the encouraging signs of the past year has been the large importations of Clydesdale stallions into this country, and some heavy French horses for breeding purposes. This has been due to the increased demand abroad for Canadian heavy draft horses, and the desire of our farmers to breed more of this type of horses.

A Poultry Census

What about the hen on the Canadian farm? Does she pay? Is she properly fed and housed? Is she the right breed to give the best returns in eggs and chickens for market? Satisfactory answers to these and kindred questions would supply a fund of valuable information that would be of immense service in the further development of the poultry industry of this country. Reliable data as to what our farmers are doing along this line would be of great assistance in extending our export trade in eggs and dressed poultry, thus bringing increased revenue for the eggs and poultry produced on our farms.

To obtain reliable information as to what the hen is doing for the Canadian farmer, we subjoin a list of questions which we would like every reader of this journal, who keeps poultry, to answer. To each of the twenty-five persons sending us the most complete answers to these questions, we will send free one of our Standard barometers and thermometers, a description of which appeared in last week's issue. The questions do not require lengthy answers, and where it is not possible to give exact figures estimates will do. All replies should reach us by Feb. 20th, in order that we may be able to compile the returns for our special poultry number early in March. In answering a question give the number corresponding to it in the list of questions. If there is no objection to publishing the writer's name, kindly state so in your reply. Any separate letters giving fuller details on any of the questions will be appreciated. We sincerely trust our friends will aid us by sending a large number of replies, the larger the number the more valuable will be the information obtained. Send in replies early. See also our special prizes for poultry essays in this week's advertising columns.

The questions are as follows:

1. What is the number of acres in your farm?
2. How many hens do you keep?
3. What breed or breeds of hens do you keep?
4. What do you feed them in winter? What in summer?
5. Have you a special poultry house? If so describe it by plan or otherwise.
6. What do you get per pair for chickens, alive or dressed?
7. What do you get per dozen for fresh eggs: In the winter? In the summer?
8. Give an estimate of the number of eggs and chickens consumed by your household.
9. Do you sell your eggs to a collector, or on the market, or dispose of them for groceries, etc.?
10. How often do you market your eggs?
11. About what does it cost you to keep a hen for a year?
12. About what would be the average return per hen from eggs and chickens in the year?
13. In your opinion, is the raising of poultry for eggs and table use given the attention it deserves in your locality? Any suggestions will be appreciated.
14. What, in your opinion, is the reason farmers do not give the poultry industry more attention?

Canada at the Pan-American

Canadians are just beginning to realize that a great big Exposition will take place at Buffalo next summer. Though it has been known for a couple of years that such an Exposition would be held in 1901, yet it would seem that only at a very recent date has the true significance of the Pan-American to Canada and Canadians dawned upon our public men and upon our Governments. But better late than never. We understand that vigorous action is now being taken by both the Ottawa and the Provincial authorities to have Canada and her products adequately represented at the big Fair. The recent appointments of Wm. Hutchison and C. C. James as Canadian and Ontario Commissioners, respectively to the Pan-American, as noted previously in these columns, is a guarantee that everything possible will be done to have this country properly represented.

In conversation with Mr. James last week, he stated that arrangements for the Canadian exhibit are getting under way very quickly. All the leading industries of this province will likely be represented by creditable exhibits, special attention being given to those for which it is desirable to develop a market to the south of the line and in the South American countries, which will be largely represented at Buffalo. Every attention will be given to Canadian live stock exhibits, which will probably be arranged for by F. W. Hodson, Dominion Live Stock Commissioner, and A. P. Westervelt, Secretary of the Live Stock Associations. As live stock will not be shown till next fall, there is plenty of time to get things in shape. In the meantime, however, Canadian breeders should give special attention to fitting their animals for this show. We understand that it is the intention of the Governments to provide sufficient funds to pay all railway charges on animals destined for the show as well as food while at the Exposition. This plan will be followed as far as possible with all Canadian products. It is not definitely known yet whether the dairymen will exhibit or not. Should they decide to do so every effort should be made to have a creditable exhibit.

The Pan-American, as the name implies, means an Exposition at which all the countries of North and South America will be represented. As far as we can learn the countries of the southern hemisphere are making elaborate preparations for the Fair. For this reason no half-way methods should be adopted in connection with Canada's display. Now that we have entered upon the task we should not take a second place to any State in the Union, let alone the Latin countries south of the equator in the character and make-up of our exhibits. Another reason why Canada should not be behind other countries represented, is that a great many Canadians will visit Buffalo next summer and it will be very humiliating to them to see the land they love so well outshone by countries far below the Dominion in their relations with the rest of the world. But we have every confidence, now that the powers that be are aroused to the needs of the case, that Canada will be well represented. A location has been secured in a most conspicuous position on the grounds near the agricultural hall for the Canadian building, and if a liberal policy is followed in erecting a structure in keeping with the position and

progress of this country during the past decade, our chances of making a most favorable impression upon visitors to the great fair are very bright. But no niggardly policy should be adopted. We believe that our people will back up the Governments of the day, both Dominion and Provincial, in making liberal appropriations for carrying on the work. Nothing will attract visitors to, or create an interest among strangers at Buffalo in this country better than a creditable and up-to-date display in the way of buildings, etc., at the Exposition. Let every effort then be made, now that we have entered the arena, to have Canada take a most prominent place at the Pan-American.

Windsor House Farm

A Visit to the Queen's Dairy in 1866

By Col. D. McCrae, Guelph, Ont.

The nobility of Great Britain and Ireland have done much during the past century for the advancement of agriculture and the encouragement of live stock breeding. This work was taken up by the late Prince Albert and had been continued by our late lamented Queen Victoria. The Windsor House Farm adjoins the Castle grounds, and here her Majesty for many years has kept some of the best bred stock in all England. Thirty-five years ago the writer had the privilege of going over this farm under the guidance of the late Mr. Tait, father of the present farm manager at Windsor. The farm is finely situated and the soil of good average quality. The stock, even in those days, was of excellent quality, though it is only during very recent years that the Windsor herds have attained the great reputation they now hold. The

cattle were Shorthorns chiefly, and a grand lot of cows they then were. Prince, with a broad back like a table top, deep ribs, and a beautiful head, was one of the "plums" of the lot. A few Alderneys were kept to provide the butter used in the royal homestead. The milk house was a gem, not large but beautifully finished, the walls in white and the floor with colored tiles. Fountains played in the milk room, and about the milk dishes a stream of cold spring water ran. This spring water ran around three sides of the room. The milk was set in white china vessels with the gilt monogram V.R. on every one, and a small gold band around the edge. It was a very dainty room and kept in beautiful order.

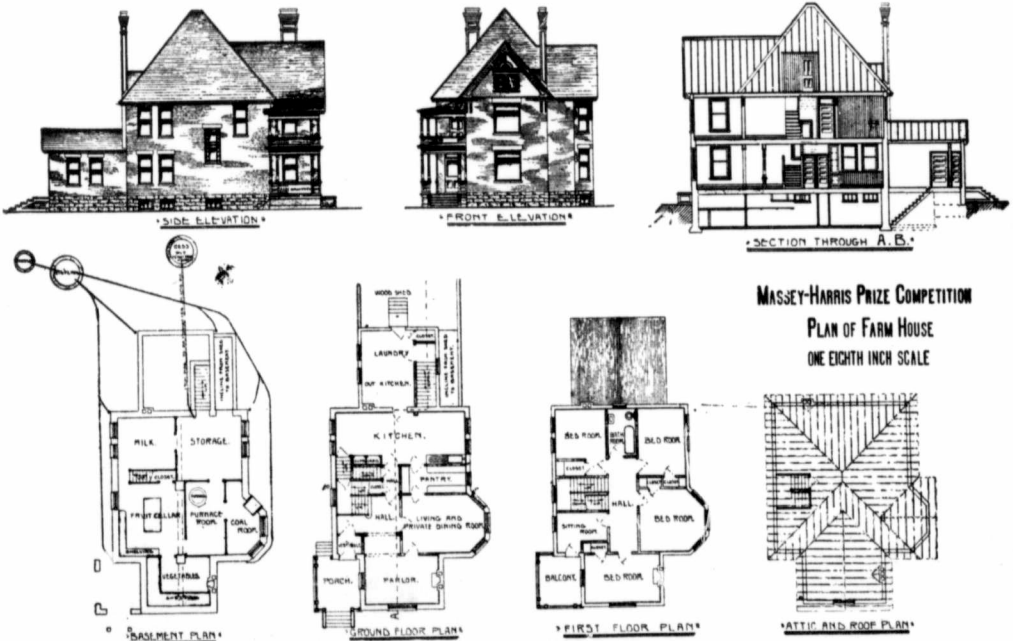
Sheep were kept and pastured on the royal lawns and amongst the beautiful Windsor oaks, some of which measured 36 feet in circumference. The pigs were of the Prince Consort's own Windsor breed, a small white variety, somewhat after the Suffolk type. The teams were Clydes, and some very good specimens of the famous Scotch breed were there.

Latterly the Queen's Shorthorns have come to the front in England, and have won many prizes both at the royal meetings amongst the best breeding herds in the kingdom, and also at Smithfield, where the best fat stock of the world can be seen. More than once the champion had been from the Windsor Farm.

Breeders' Notes

By Stockman

Cattle and sheep have both declined in British imports. Cattle have only decreased 8,470 from 503,604 in 1899 to 495,134 in 1900. The decline has been in Argentine cattle, against which the markets are now closed. 29,000 more were sent



Plan of John M. Watt's House—First Prize at London Fair, 1900.

from the United States and 9,000 more from Canada in 1900. Sheep imports were 607,755 in 1899 and fell to 382,822 in 1900, a very large decrease of 224,933.

HORSES VS. MARES.

It is a very remarkable fact that during the century only three mares have won the Derby. Eleanor in 1801, Blinkbonnie in 1857 and Shot-over in 1882. They have done rather better in the St. Leger, which is run in September. This race was established in 1776, and in 124 years the St. Leger has been won 23 times by mares. Both in the Derby and St. Leger horses have therefore beaten mares very decidedly.

RACE HORSES.

The prices of race horses have gone up, owing to the large stakes now offered for some of the big races. Several are now worth \$50,000 each. As a consequence not only has the price of promising yearlings greatly advanced, but noted winners have brought great prices for stud purposes. Doncaster was sold for \$70,000, Coneman for \$80,000, Galteemore for \$110,000, and the late Duke of Westminster's Flying Fox was bought and exported to France, the price paid being \$187,500. One race horse recently won in one season nearly \$200,000 in stakes. The thorough-bred had also proved valuable as a sire of good hunters with great staying power.

SHIRE HORSES.

This ancient breed of British draft horses has long occupied an important place in the Midland Counties of England. The first volume of the Shire Horse Stud Book was issued in 1878. Many able men are now handling them, and great improvement has been made in recent years in the quality of the animals shown. Clean legs and good, sound, flat bone is now in evidence, and this, with size and sharp action, makes a good draft type. The shire breed promises to do well in the near future.

LIVE STOCK IMPROVEMENT.

Robert Bakewell, of Dishley, Leicestershire, England, was the first great stock improver of whom there is any reliable record. He was born in 1726 and died in 1795. He was an advocate of small bone in all feeding animals. "Substitute muscle and fat, which you can eat, for bone, which you cannot," was one of his maxims. He mated with great skill and did not hesitate to adopt in and in breeding. He founded the Leicester breed of sheep, and so popular did they become that one of his rams was hired out for \$4,000 for the season. He did more than any man of his day to improve the breeding of live stock, and his methods were copied by all the best breeders of the early days of the 19th century.

Cattle Ranching in the Canadian West

Mr. J. W. Simmons, Bradbourne, Alberta, N.W.T., writes Mr. F. W. Hodson, Dominion Live Stock commissioner, as follows:

"I am writing you a long letter, and hope you will excuse me for addressing so busy a man.

A little over two years ago I first awoke

to the glowing skies of sunny Alberta, and was so impressed with its wide ranges and illimitable supplies of pasturage and hay, that, though a school teacher with small capital, here I stayed, built my log house, stables, sheds corrals, etc., and commenced ranching with a few head of cattle.

Every day I am impressed with the advantages of this place as a field for investment. Capital well managed is the "sheet anchor" here, and capital I am going to try to find. I shall describe stock-raising here as truthfully as I know how.

I am on the skirt of the Foot Hills, northwest of Calgary, in a country of hill and valley, spring and creek, rolling prairie, with clumps of willow and poplar. Deep coulees cut the benches, generally joining valley to valley, and into these great coulees run smaller ones, often deep and mostly containing springs. Nearness to the Rockies makes scarcity of water impossible.

The soil is a deep, black loam, with a porous loamy yellow clay sub-soil. Hill or valley, wherever you go, is the same deep rich alluvial clay. The prairie grasses are various, abundant and excellent in quality; so abundant that in August and September a team and mower can cut from six to twelve tons per day of excellent hay. Hay upon which, without grain, the ranchers' horses can do much hard work, and hay upon which stock fatten unaided by roots or grain. But the most remarkable fact is that these grasses seldom shoot or head, and the greater part never. They cure or become good hay on the ground. In July the tips of the blades become brown, throughout August this continues until the whole blade is brown. Cattle, horses and sheep live on this all autumn and all winter. In winter horses will fatten on it, and lusty steers hold their own. Cows and calves will do well on it, provided they have good shelter, and are led through severe storms or intense frost.

In summer the nights are cool, hence grains develop slowly and are apt to be injured by early frosts, but oats and barley ripen on the benches, while from two to four tons per acre of green oat hay are commonly grown. Brome grass is also a great success.

The spring of the year is generally bright and dry, but given to sudden squalls. June is showery, July and August are marked by hot suns, breezy winds, cool nights. September and October are often the finest of the year. The winters are peculiar, a nor'wester, rough and stormy, more or less snow for several days, then comes a biting sou'easter, not blustery or bold, but clear, dry and cutting; in a few days this blood-chiller moderates, suddenly the wind veers to the sou'west, an arch, the ranchers' joy, appears in the sou'west sky, the chinook, soft and balmy is blowing, the snow vanishes as if by magic, the prairie is again rustling, brown and dry. These winds sometimes blow for weeks, the sky is lightly clouded, the arch is clear. These chinook days are the charm of the year. The air is dry, not too warm, never cold. The ground is dry and frozen, no mud, no snow through which to flounder. Cattle and horses wander upon the hills at their "sweet will," and the rancher is at peace.

Stock-raising here is very different from the same business in the East. Immense ranges, superabundant pasture, no rent, no taxes, hay for the cutting, what is needed, simply capital, and good sense in managing stock. Let me here

remark that the way is pretty well strewn with wrecks. Men of means come in ignorant of the country, ignorant of stock, ignorant of work. For help they hire, or rather entrust their business to men, who are quite clever in their own way, men who can ride a bucking bronco to a finish, rope a wild steer to perfection, or perform cow-boy feats that astonish the tender-foot, but all this is not ranching, for ranching needs "sitting up with" in spite of all our advantages.

The following are the chief causes of failure:

1st. entrusting management of stock to men whose qualifications are more ornate than practical.

2nd. Allowing cattle to wander at their will so far away they are not recovered.

3rd. Steers run with breeding cows, and do not fatten.

4th. Cows are left on the range all winter. The strain is too severe, and many fail to breed more than every other year.

5th Yearling heifers get in calf, and die for want of a little assistance in calving. Black-leg claims a percentage of young cattle. Many losses are set down to Black-leg, which are due to poison by "Poison cowbane" or by Larkspur.

To avoid these losses needs alertness and diligent care. Better feeding, better general oversight, will improve the stock, reduce loss to a very small percentage, and ensure better returns from cows.

The raising of steers, which are bought as calves in autumn, or as yearlings in spring, promises to be a great industry. These are got from the farmers in the Territories, Manitoba and Ontario, and increase in value, according to care, at from thirty-five to forty-five per cent. compound per annum, and they can be raised with the minimum of outlay and labor. It takes about the same general looking after for a large herd as a small one, the same riding, for five hundred as for fifty. The main difference is in the amount of hay needed. It pays to have a large bunch of steers and herd them in summer. They grow better, fatten better, and the cost is not much more than that of rounding them up.

The writer is confident that on the profit-sharing plan, an investor can make twenty per cent. compound per annum. Our excellent brand laws make such a plan quite safe, or he would gladly submit plans for the management of a large stock ranch on the best paying basis, and will gladly answer any questions, or supply any information in his power. He would also be prepared to pay an investor ten per cent. per annum, giving good security.

In a letter like this, many phases of stock-raising have not been touched, such as dairying, raising horses, raising thoroughbred cattle, etc.

Table Poultry for England

The Dominion Department of Agriculture gives the following information relating to the breeds of poultry whose chickens fatten most profitably. We are pleased to note the advancement of chicken-fattening in Canada, and would advise all farmers intending to fatten their chickens, to raise the suitable breeds recommended by Prof. Robertson.

Since the preferences in every market determine what sort of goods is most readily sold on

that market, in catering for the high-class poultry trade of England, the qualities sought for in the best table poultry must be carefully considered. These qualities are: Plumpness of breast, whiteness of skin, fineness of grain, smallness of bone and absence of offal.

Breeding stock, whose chickens fatten profitably and are suitable for the best English markets, consists of fowls of a square shape, with long, broad breast, and straight keel. The wings of large size, and the combs as small as possible. The birds must be active, healthy and vigorous; the chickens should be hardy, mature early and fatten readily. Heavy-boned and heavy-legged poultry must be avoided.

With regard to the breed of fowl to be made use of, the Barred Plymouth Rock has fattened very satisfactorily at the Dominion Government poultry fattening stations. At the Bondville, Que., station, Mr. Hillhouse fatted a number of Barred Rock Cockerels that when dressed and ready to pack into the cases, weighed eight pounds each. Some of these chickens were exhibited at the fat stock show in Guelph, Ont., last December, and were greatly admired. Whilst they all had bright yellow legs, the skin of each chicken was perfectly white. The color of the skin is due to the feeding. Not one of the several thousand chickens shipped to England last year from the poultry fattening stations had a yellow-colored skin. Legs must not be dark or black in color. All other qualities being equal, a yellow-legged chicken brings the same price in England as one having white legs.

In breeding Rocks for table quality, select a male bird with short legs, and with a small, low comb. The English poultryman, remember, buys the head and legs of the chicken, and pays less per pound for chickens with long, heavy legs and large combs. Do not develop these useless qualities.

White Wyandottes fatted well at the Whitby, Ont., fattening station. They are superior to the Barred Rocks in that they have less offal, i.e., smaller combs and lighter bone; they do not, however, fatten as heavy birds. The chickens mature quickly, and are plump broilers at almost any age.

Throughout Canada chicken fattening is developing into an important branch of agriculture. The above breeds of poultry, Barred Rocks and White Wyandottes, are recommended for fattening purposes by the Dominion Department of Agriculture.

To show that they suit the high-class English market, I quote the following letter from the agent of the Department of Agriculture in London, Eng.:

"Chickens were in good condition; the cases marked 'A' (Whitby) particularly good, as bright and sweet as possible and in splendid condition. The dealers that handled these goods said that they were as fine chickens as they ever handled, and would only let their customers have one or two cases at a time, as they would sell for best prices to parties that demanded the very best class of goods. They were prepared and packed in the best manner; cases the right size. These chickens compare very favorably with the best English fowls."

F. C. H.

PRIZES FOR ESSAYS ON POULTRY.

Look up our special announcement this week regarding prizes for essays on poultry keeping. This should interest everyone who lives on a farm. Also see our list of questions in regard to a poultry census.

Cattle Breeding*

This paper will not for one moment discuss the question as to whether the farmer should grow cattle, or not, upon his farm. To farm without live stock is so completely at variance with the proper maintenance of fertility that such farming will not even be considered here. On the assumption that every farm should have upon it its quota of cattle, the question to be considered is what kind of cattle shall be kept. This question cannot be answered with too much care, since on its determination will depend to a large extent the measure of the success that will attend the keeping of cattle upon the farm.

ADAPTABILITY TO NATURAL CONDITIONS.

The adaptability of the breed to be chosen, to the natural conditions of the farm, is the first thought that should engage the attention of the farmer. His natural tastes should unquestionably be made subservient to this idea. If those natural tastes are in accord with the natural conditions of his farm, it will be strange indeed if he does not succeed. If they are not, then it is almost certain that failure will follow any attempt that he can make to introduce a breed into a locality where the environment is not suitable and where possibly it is even at variance with the needs of the animals thus chosen.

No greater mistake is made by the average farmer who grows cattle than the little consideration that is given to adaptation; with the many, the paramount question is, which is the best breed? It ought to be, which is the best breed for my conditions? It may be possible for a man to change or modify adaptation in a breed, but to do that will take generations of careful breeding and feeding. But why should the energies of a lifetime be thus expended on the modification of a breed, when one of the many breeds now in this country will exactly meet the needs of the farmer? Life is too precious to waste it thus.

Wherever the land is level in character, the soil rich and fodder and grain production is abundant, the large breeds of cattle can be maintained with profit, and usually they can be maintained under such conditions with the highest profit. It may not be easy to verify such an assumption by the facts of actual demonstration. That large breeds, however, are usually kept under such conditions is at least a presumptive proof that the farmers have found them more profitable than the small breeds. It is also highly probable that large animals, under the conditions named, can be relatively more cheaply maintained than small ones. For instance, suppose one cattle beast, large in size, produces as much as two small ones of an equal combined weight, it will be maintained more cheaply than the two small animals, especially in a cold climate, since more food will be consumed in driving the machinery of two living organizations than in driving the machinery of one with equal capacity to the two. A large breed will be the best, therefore, for such conditions, other things being equal, whether the farmer seeks meat, milk or the two combined.

Suppose, however, that the farm is mainly composed of rugged land, similar to that which forms the bluffs along the Mississippi, and that

the soil is light. The production on such land will not be nearly so abundant as on the level and rich prairie farm. It would be a mistake to introduce a ponderous breed on such a farm. A light breed, such as the Devon, for instance, could readily climb the bluffs and gather food, whereas a ponderous breed, like the Shorthorn, could succeed only in carrying their heavy bodies over such land by labored effort; while, therefore, the former, a small breed, would almost certainly succeed well under such conditions, the large breed would not prove a success.

Then, again, there are farms that are intermediate in character. They have pasture lands upon them that are undulating and in some instances hilly. They also have upon them level stretches, where plentiful food supplies may be grown with which to sustain them in winter. Here, then, are conditions suited to the maintenance of the intermediate breeds, as for instance, the Red Polls or the Ayrshires.

Where protection cannot be furnished, the natural hardihood of the animal is an important factor. But under farm conditions, it is not so important relatively, since that measure of protection can usually be furnished, suited to the needs of the breed. It is not to be understood, however, that hardihood in breeds, even on the arable farm, is not an important consideration.

CATTLE FOR BEEF PRODUCTION.

On a given area of farming land it will be found that, even under existing conditions, when the prices of beef are relatively high, a greater profit can be obtained from cattle kept for milk or for milk and meat than for meat only. But the fact remains that even on some arable farms, if cattle are to be grown at all, they must be grown for meat production only. The conditions that relate to labor are such that cows cannot be milked, nor can the milk be cared for in the best fashion. Some of these have relatively large areas for pasture, as in the northern part of the State, and on others the pasture area is limited, although other food is grown in great abundance. Under these conditions, which breeds should be kept? Four breeds will fill the bill reasonably well, but not equally well. These are the Shorthorn, Hereford, Aberdeen Angus and Galloway. Under the conditions first named, that is, when the areas of pasture are large and of cultivated land, small, Galloways will probably fill the bill better than the others; especially will this be true where the animals are considerably exposed in rough weather. The dams may be of mixed breeding, the sires being Galloway. The young animals would suck their dams and at 18 months or 30 months would be sold for fattening on farms where the necessary foods can be grown. High grade Galloways fatten well and produce meat that is eagerly sought in good markets. On the second class of farms named, the Aberdeen Angus would probably prove the most satisfactory, because of the excellence of the meat produced. But when grown under such conditions, the aim should be to grow meat of the best quality. The young animals should be pushed along from birth and put upon the market at from 24 to 30 months. They should never be allowed to stand still in growth or to become lean in flesh. This means that they must get all the supplemental food they want, and varied in kind, and whenever

* Read by Prof. Thos. Shaw at the annual meeting of the Minnesota Live Stock Breeders' Association, January 8th, 1901.

they need it. The profit comes through the excellence of the meat product and the good price it brings because of high finish. Only the skilled feeder can grow such meat.

(To be continued.)

CORRESPONDENCE

Lessons from a Dairy Herd

Professor Dean Supplies Some Valuable Information for Dairymen

Editor THE FARMING WORLD:

We are all children in the dairy business, learning our lesson in the school of experience, where the fees are rather high. The dairy cow is teaching us all lessons by which the wise dairyman profits. My purpose is to speak of some lessons learned by observing a dairy herd, and weighing and testing their milk during the past ten years. We have tried many different kinds of foods during these ten years, but have now settled down to pasture, green peas and oats, corn silage and bran for summer feeding. In winter the following ration we have found satisfactory:

- 30 to 40 lbs. corn silage,
- 20 lbs. pulped mangles,
- 8 to 10 lbs. cut hay (clover preferred),
- 4 lbs. bran.
- 2 lbs. ground peas,
- 2 lbs. ground oats.

This ration is given to the cows at two feeds. The first is fed about 7 a. m., after milking. The second is fed at 4 p. m., before milking.

We have found that cows require about eight pounds of concentrated feed (meal) for each pound of fat they are producing in their milk. Small cows will usually require less meal per pound of fat than will large cows. All foods should be made palatable and should be mixed with judgment. The feeder should study the appetite and preference of each cow in the herd. It is not possible to cater to every whim and fancy of a cow, but the feeder should humor the cows as much as possible.

It costs us about \$30 per year to feed a cow. Some cows cost as much as \$45 per year to feed them, and others do not cost over \$20 to \$25, in some seasons, when grass is abundant and pasture is charged at the rate of one dollar per month for each cow.

In 1891, when I took charge of the dairy herd at the college, there were 15 cows in the stables which averaged 6,000 lbs. of milk per cow. They were good cows, having been selected with great care by my predecessor, Prof. Robertson. Unfortunately, most of these cows were lost, two or three years later, and we had to commence building a new herd. The average for the dairy herd in 1900 is over 7,000 lbs. per cow, including heifers.

During these ten years we have had representatives of five distinct breeds in our herd, and grades of nearly all breeds. We now have more "black and whites" than of any other breed or grade. A few grade Shorthorns have been excellent cows. Grade Shorthorn cows bred to a pure bred Holstein bull have given us some of our most promising young cows which we now have in the herd.

To show how rapidly a herd of 30 cows

change, I may mention that we have no cow in the herd at present which was in the stable ten years ago. One cow, a pure-bred Ayrshire, was milked for nine lactation periods, and this is the longest record of any cow we have had up to the present.

As the average of 109 lactation periods of 33 cows we find that the average percentage of fat contained in the milk from the first to the tenth month of lactation gradually increases, but there is little difference for the first three months. Cows give the largest yield of milk and fat during the second month of lactation.

Cows which give milk below the average percentage of fat, tend to give richer milk shortly after calving (during first two weeks) than they do for the first three months, especially is this the case when these cows are high in flesh at time of freshening. There is always considerable risk, however, from milk fever in adopting this plan.

Cows, as a rule, give as rich milk when heifers with first or second calves as at any time. We have two exceptions to this rule. The percentage of fat in milk tends to decrease after the cow becomes ten years old.

The Ayrshire cow spoken of, during nine lactation periods, gave milk ranging from 3.3 to 4.5 per cent. fat, and averaged 3.86 for the first month of lactation; 3.5 to 4.1, or 3.78 for 2nd month; 3.5 to 4.9 or 4.13 for 6th month; 3.5 to 5.6, or 4.66 for the 9th month.

As a result of several experiments we conclude that the percentage of fat in the milk is largely governed by the cow, and that the feed has little to do with it. As an example, we may mention that cows fed on silage, straw and hay, gave milk with an average test of 3.67 per cent. fat. These same cows when fed hay, oil-cake and cotton-seed meal, produced milk testing 3.49 per cent. fat, and when fed hay, peas, oats and corn (17 lbs. meal) they gave milk with an average of 3.25 per cent. fat. High feeding tends to stimulate the flow of milk, and consequently, to some extent, to reduce the percentage of fat, but this variation occurs within narrow limits, probably not over one-half of one per cent. of fat.

Experiments have always demonstrated that cows are able to manufacture the milk fat from substances other than the fat contained in the food. As an instance of this, we fed two cows about four pounds of fat in their food during one week. These cows produced in their milk about 9 1-4 lbs. of fat. Three cows on pasture ate about 7 1-2 lbs. fat in their grass but made 17 1-2 lbs. fat in their milk. Experiments elsewhere have demonstrated that a cow is able to manufacture milk fat when practically no fat was fed to her in her food. Wonderful is the power of the cow! Her unselfishness is beyond the comprehension of the average man!

The creaming quality of the milk by gravity process also varies a great deal with different cows. A cow's milk testing 3.68 per cent. fat when set for 12 hours, contained 2.26 per cent. fat in the skim-milk. Another cow fed on similar feed and cared for in a similar manner, gave milk testing 5.56 per cent. fat, and when this milk was set under similar conditions to that of the first cow, the skim-milk tested but .1 (one-tenth) of one per cent. fat. When the whole milk of these two cows was mixed and then set for 12 hours in creamer cans submerged in ice water, as in both the cases cited, the skim-milk tested .7 (seven-tenths) of one per

cent. fat, showing that the mixing of a cow's milk which creams readily with that of one which does not cream readily, the creaming quality of the latter is improved. In the case of a centrifugal separator no difference was observed in the creaming quality of different cows' milk.

Many other lessons we have learned, but of these I shall speak at some future time.

H. H. Dean.
Ontario Agricultural College,
Guelph, Jan. 30, 1901.

Experiments with Fertilizers

EDITOR THE FARMING WORLD:

Dr. Saunders' reply to my letter of 22nd Nov. has come to hand only just as I am setting out for Europe, but I think with him that the importance of the questions raised make it worth an effort at elucidation. Let me first assure the Director that I do not mean any disrespect, nor do I wish to cast any unfair reflection upon him, so that I hope he will not take offence at my homely expressions.

I think still that the experiments reported are not what we want. The Rothamstead experiments have been very valuable for scientists to study, and even they have drawn varying conclusions from them. Farmers will fail to see why they should be repeated eternally to the exclusion of more practical work. If they were simply carried on as a scientific experiment from which the operators drew lessons, we could pass them by. Is it necessary, or even advisable, to thus impress upon farmers that artificials are practicably useless? Is it not misleading them? Have they the knowledge or training necessary to draw proper conclusions from such experiments? My contact with farmers teaches me that 98 per cent. of them when shown the report, invariably conclude that phosphate, or nitrates or potash are no use as manure. I have such a high opinion of the intelligence of Canadian farmers that I believe they will soon condemn these experiments with a force which the Director will not be able to withstand. It may be quite satisfactory to the Director to have the encomium of "prominent agriculturists," but it is the farmers of Canada who will sit in judgment on these experiments. I have said nothing against the plain farm-yard manure experiments. I think we all appreciate them, and I hope at their true value. Personally I think the manner of applying the farm-yard manure is crude in the extreme. These experiments teach us that the valuable contents of the heap do not increase by rotting. This is most reasonable and in accordance with natural law; that humus can be more profitably produced in the soil than in the heap; that we must look beyond such manures for maximum production.

The salt or barley experiments are most unfortunate, as they are really dangerous, their only saving feature being the comparatively small yields. The land on which these experiments were made was admittedly deficient in humus. Barley is usually helped by salt on such lands because it uses over ten times as much silica for the grain than wheat, and the silica is made more easily available by the action of salt, which is only an indirect and not a direct fertilizer. For the same reason

on lands wanting in humus, oats frequently show increased yield from the use of salt, and the straw of grain is also strengthened. Surely the Director does not conclude from his experiments that the application of salt is a need of the barley crop. The letter of Elias Rive, of Eramosa, on the same page as Dr. Saunders', has the right ring, and his question, "Is it too much nitrogen that spoils the crop or the lack of some other constituents?" strikes the nail on the head.

After twelve years of these experiments what do they teach? Prof. Saunders says they teach that applying fresh manure is more economical than rotting it, and he is right, I think, from a chemical, physical and labor-saving standpoint. He says salt increased the barley yield. He does not claim any more. The first conclusion is of value, and as far as I can see, the only valuable one. How about the rest? Am I so far astray in saying they "are of very little or a negative value?" Has it not long been held that farm-yard manure alone would not yield the maximum ripened crop? Has it not been proved that the addition of commercials will greatly increase the crops, if intelligently applied? Is there any one so foolish as to claim that the mere manuring with but one of the elements of plant food, in any form, for several years will be a benefit? Can the Director now, from these experiments, give us a method of manuring, by which all kinds of lands can be induced to yield an increasing crop with a reasonable promise of maximum production, and give his reasons therefor? If not, are the twelve year experiments of a positive or "negative" value? In twelve years the farm-yard manure experiments absorbed from 1,400 to 1,600 lbs. of nitrogen per acre, while the crop requirements at 21 bushels of wheat per acre for twelve years, straw and grain, was but 300 to 315 lbs. nitrogen. Has the rest been wasted? Could it not have been utilized better? Does this suggest the force of Mr. Rive's question?

Director Saunders destroys the effect of his closing paragraph by the words of the last two or three lines, which carry a doubtful meaning. The intelligent use of artificial manures is correct and necessary in farming to-day, and there is abundant evidence in proof of this, which the misleading "facts" to which he undoubtedly refers cannot gainsay in a mind free from prejudice. The Director's letter only seems to emphasize my condemnation of the experiments, and if my calling attention to them only leads to some practical method being adopted I shall be pleased indeed. I do not seek to disparage anyone, but to do what within me lies to bring about such an improvement in the general methods of manuring that crop production may be economically increased.

Fernside, January, 1901.

T. C. Wallace.

MONTHLY MILK TICKETS.

Dairymen should note our special advertisement this week of monthly milk tickets. These are adapted for supplying monthly statements to patrons of cheese factories and creameries, and Secretaries of factories should send for samples. The tickets are much better than the old pass-book plan. In addition to supplying a statement of account to each patron once a month, they give him special directions as to the proper methods of caring for milk, for cheese and butter-making purposes.

Studies in Nature

A Monthly Review of Insect and Bird Life on the Farm

Edited by C. W. Nash

Bird Notes.

The month of January is not generally considered a very favorable time for making out-door observations, yet there are often fine days upon which much can be seen, and a walk in the country will be of interest to people who have learned how to observe. In the open fields and along the roads flocks of snow buntings may often be seen whirling about like the snow flakes; then dropping on some spot where dead plant stems are sticking up through the snow they busily run about feeding on the seeds which yet remain in the seed vessels; these birds do not hop as do most of our small birds, but walk and run with a graceful motion which makes their actions very noticeable. On the fine and mild days, which sometimes occur even in mid-winter, the weed patches, which are too often to be found even on our best cultivated farms, will be visited by flocks of tree sparrows and juncos (these last being better known, perhaps, as the blue snow birds). Both of these little sparrows are of great value as weed destroyers. In cold and stormy weather they managed to pick up a living in sheltered ravines where evergreens grow, taking advantage of every favorable opportunity to get out and when they can do so, they make up for days of privation by gorging themselves incessantly upon the seeds that produce the most noxious pests of the land.

In the woods flocks of wild canaries now in their dull yellowish brown winter plumage may be found feeding greedily on the seeds of the birch and hemlock. At this season they do not sing, but at all times keep up a constant merry chattering while they feed, and when flying they continually utter their call notes to keep the flock together. Pine finches and redpolls also frequent the tops of the hemlocks and birches, and seem to keep fat and merry no matter how severe the weather may be. The pine finches seldom leave the woods, but the redpolls are of a wandering disposition and make frequent excursions out into the open country where they visit the weed patches and fare sumptuously. A very curious winter visitor, that sometimes occurs in large numbers is the crossbill, so called because the mandibles of its beak cross each other instead of meeting along their whole length as in most other birds. This special provision enables the crossbills to wrench out the scales of the pine cones and extract the seeds from them, these seeds seem to possess fattening qualities of a high order, for the crossbills are always in good condition, even in the most severe weather. Although the crossbills are generally considered to be winter visitors only, yet they are very erratic in their movements,

and may occur at almost any season, and some undoubtedly breed in southern Ontario. I have several times found them in pairs as late as the middle of June. I have more than once taken young birds with the membrane around their beaks quite large in the month of May.

One of the most beautiful and amusing of our winter residents is the blue jay. These birds may be found in almost every bush in the province all through the winter; cold and snow have no terrors for them. They are always capable of finding enough to eat and a snug corner to shelter in, no matter how severe the weather may be. On fine, sparkling winter days, when the thermometer is down about zero, they are as saucy, active and noisy as they are in the pleasant days of spring, but when the storm king rages, and the snow is driving hard through the leafless woods, they, like "Brer Rabbit," lay low in some spruce or cedar swamp until the hurly-burly is over, when they again bob up serenely, and hustle about as if the work of the whole bird world was upon their hands. One cannot help but admire the rascals, in spite of the fact that they are notorious fruit thieves, and destroyers of the eggs and young of other birds.

Although the woodpeckers have been so mercilessly destroyed all over the country, an odd downy or hairy one may sometimes be met with in the woods, or even perhaps in the orchard. Wherever they are, be sure they are engaged in good work for us by keeping in check the borers that are now working such havoc among the trees. Unlike the noisy blue jays, the woodpeckers go about their work quietly and systematically, rarely at this season uttering any note, and only making their presence known by the noise they make in digging into the wood for the grub they know is concealed there. Just notice a little downy woodpecker as it works its way over an old apple tree in the orchard, how it begins quite low down on the trunk, and, working upward spirally, it scans closely every crack and crevice in the bark, stopping here and there to pull out and devour the chrysalis of a codling moth or some other small insect which has hidden there for the winter, or to pick out a bunch of eggs deposited near some shoot, the leaves of which would have formed food for the caterpillars had they been allowed to hatch in the spring. Presently the bird stops and closely examines some spot that has attracted its attention, then commences a vigorous hammering; this is continued for a minute or two, and then the bird, thrusting in its barbed tongue, spears and pulls out a fat borer, which, if left alone, would have perhaps killed, and certainly would have seriously injured the tree.

A few years ago our southern and south-western counties contained large numbers of quail, but now these valuable birds are very scarce in the counties of Halton, Wentworth and the Niagara peninsula. They are still rather abundant in the south-west part of the province, but even there the number might be advantageously increased. It is not necessary to urge upon sportsmen the desirability of increasing the stock of the beautiful little game bird; they are all agreed as to that; but I wish to point out that to the farmer and fruit-grower the quail is of the greatest economic importance, and well worth some attention and care from them. The quail is one of our few species of birds that are directly beneficial to the agriculturist; all its life is spent among the crops upon which he expends his labor, and from which he derives his profit, and it is constantly engaged in destroying the insects that are most destructive to the plants raised by his care under cultivation.

For the first two or three months of their lives young quail feed almost entirely on insects, and each one while it is growing consumes nearly its own weight of them every day. To obtain this quantity the number eaten must be very large. As the birds near maturity they vary their diet by adding the seeds of various weeds, grasses, etc., to their bill of fare, but still take large numbers of insects so long as they are obtainable, grasshoppers in the autumn forming their principal article of food. After these fail they are compelled to find their sustenance in the stubble fields and weed patches, where they glean sufficient grain and seed to keep themselves in good condition until the supply is cut off by deep snow; then it is that our quail suffer from lack of food and die in large numbers from starvation and cold.

If well fed quail can withstand the severity of our winters quite readily, but if starved, they, like all animals, gradually succumb to cold, and it is by reason of their inability to obtain food when deep snow covers the ground that so many are lost every winter. This could be prevented if the farmers and fruit growers in the quail counties would afford the birds a little food and protection to carry them over the latter part of the winter season in which the greatest mortality occurs. A simple method of affording the requisite protection and food is to arrange three or four forked poles so that they support each other in tent form and throw over them a little pea straw, buckwheat stalks or waste straw, etc., so as to leave a hollow underneath into which the birds can go and be safe from storms. Into these places throw a few measures of tailings or waste grain occasionally and the quail will be able to maintain themselves in safety.

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', \$5.

BENEFITS OF MEMBERSHIP.

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

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

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

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

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 15th 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.

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

Stock for Sale.

Owing to an oversight the list of Shorthorns for sale by David Milne, Ethel, Ont., was omitted from last week's GAZETTE. It comprises 9 bulls, 9 to 24 months and 20 young cows and heifers.

Lambs for Iowa Experiment Station.

Prof. John A. Craig, of the Iowa Experiment Station, Ames, Ia., is anxious to secure half-a-dozen good wether lambs, either Shropshires or Southdowns, that are likely to develop into show sheep next summer. Any one having such sheep to dispose of should communicate with Prof. Craig at once, giving the number of wethers on hand and a description of them.

Entries for the Provincial Sales are of High Type and Quality.

The quality of the animals that will be offered for sale at the Provincial Auction Sales at Guelph and Ottawa on February 27th and March 6th respectively, is well exemplified by the following extracts from letters received from prominent breeders who have entered stock for those sales:

Mr. E. E. Martin, Canning, writes: The pigs I have entered are the first choice of our spring litters of 1899 and 1900, and are as good pigs as I ever bred. They are up-to-date Berkshires, in breeding, style and quality, with good heads, length and depth, grand back and hams, and they stand on the best of feet and are sure breeders.

Mr. John T. Gibson, Denfield, says: The Shorthorns I am forwarding are good ones and will be a credit to your sales.

L. Rogers, Weston, a well-known Yorkshire breeder, writes: My entry is from noted show stock on both sides. His sire was a winner at Toronto in 1898 and his dam in 1897.

Among those who have entered stock are such well-known names as G. B. Hood, Guelph; H. Arkell, Arkell; W. Grainger & Son, Londesboro'; McNiven Bros, Ancaster; R. S. Brooks, Brantford; J. Yull & Son, Carleton Place; G. W. Clemons, St. George; L. Burnett, Greenbank; H. D. Smith, Compton, Que.; H. K. Fairbairn, Thorford; W. W. Ogilvie, Lachine Rapids; Robt. Hunter, Maxville; Hon. W. Owen, Montebello, Que.; Colwill Bros., Newcastle; Jno. A. Richardson, South March; D. McCrae, Guelph; D. Talbot & Son, Everton; A. W. Smith, Maple Lodge, and others equally prominent in live stock circles.

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 the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected, and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette," and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

Wanted, thoroughly temperate and industrious men of good habits on a large farm in Western Michigan. Work begins about April 1 and lasts to about November 1. Wages for teamsters \$20 a month

and board; for other work \$1.10 per day without board. Board furnished at \$2 50 a week. Also wanted, a married man of experience as manager of a large cattle ranch in Western Michigan. State age, nationality, whether married, and, if so, size of family, and whether family will accompany; also give experience with stock and farm machinery. Some further consideration besides wages given to suitable and permanent applicants. No. 663. a

Man wanted by the year, to start April 1, who is capable with horses and cattle, able to milk and plough well, and is generally useful. Wages \$150 to \$175 per year. No. 664. a

Wanted, a man used to all kinds of farm work. Must be a good ploughman. Will hire for 7 months from April 1 at \$18 per month, or by the year at \$175 and board. No. 665. a

Single man wanted to work in a market garden near Regina and deliver in town. One who has had experience in both preferred. Wages \$25 a month for 7 months. Work to start April 1. No. 666. a

Trustworthy man wanted as farm manager in New Brunswick. One who knows his work and will do it. Good wages to a good man. Engagement to start May 1. No. 667. a

Two single men of steady habits wanted on a stock farm, one to act as foreman. Must understand live stock, especially sheep, and be able to run machinery. Wages to the foreman \$200 and to the second man \$175 and board. No. 668. a

Good man wanted on a farm where mixed farming is carried on. Wages \$200. House and garden and keep for a cow supplied. No. 658. b

Wanted, first-class man, who is capable of taking care and charge of stock. No. 659. b

Wanted, stout boy of 16 to 18 years of age to work on a dairy farm. Must be a good milker, and kind and useful with stock. State wages wanted and give good references. W. E. Gillet, Beechwood Farm, Petrolia, Ont.

Wanted, head man for farm, whose duties would be to follow the leading team and milk. No. 660. b

Wanted, married man for dairy farm, near Winnipeg; wife to assist at milking. House, garden, etc., free. Good salary and steady employment for competent persons. Good school and church near by. Also one or two single men wanted for same farm. Comfortable home. No. 661. b

Steady, careful and honest girl wanted, to do house-work on a farm and help milk. Wages \$2 a week from May 1 to September, and \$1.50 per week in winter. Or would hire by the year and engage now. No. 662. b

Situations Wanted.

Married man, 36 years old, with wife and two children, sober and industrious, who understands care and management of horses and cattle, and use of machinery, wants a place. Speaks German and English. No. 484. b

Young man, 23 years of age, single, desires a situation on a farm. Has always lived on a farm and is used to milking and general farm work. No bad habits. No. 485. b

Wanted, dairy farm to work on shares, where 20 or 30 cows are kept, or would manage one on salary. No. 486. 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 matters relating to Institute work. This will include instruction to Secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institute that has carried in the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes

Farmers' Institute Field Notes.

By the Superintendent.

The Institute delegates who have been addressing meetings and introducing discussions in every county of the Province of Ontario, are this week returning home to get ready for the February sessions.

Without exception these men who have been in the work from year to year, say they have had better meetings on the whole than in previous seasons.

ALONG THE ST. LAWRENCE.

Mr. Henry Glendenning, who has been in the dairy counties of Hastings, Addington, Leeds and Frontenac, says that the people in

the west do not appreciate what these counties are doing, particularly in dairying. We talk about Oxford and Middlesex and our minds become prejudiced in favor of the farmers of these districts. We forget that these people in the western peninsular have had superior advantages ever since the early settlers hewed out homes for themselves, in what was known in those days as the old "Huron Tract." We forget that the people of the St. Lawrence have had to come to the western part of the province for the foundation stock of their herds. We forget that dairying all the year round would scarcely be possible without summer feed in the form of either ensilage or silencing crops.

We forget that last summer when, in order to keep up the milk flow, the western farmer had to take his cattle off the dry pastures and feed them in the stables, the cattle of the St. Lawrence District were wading in pasture up to their knees. The district through which Mr. Glendenning passed has contributed a large per cent. of the butter and cheese that went to make up the twenty-five million dollars' worth of exported products during the year 1900.

FEEDING RATIOS.

Mr. Glendenning says that, notwithstanding the fact that his subjects as advertised cover quite a broad field, the one entitled "Feed and Feeding" was called for most frequently and discussed most thoroughly. "My charts," said Mr. Glendenning, "which showed the nutritive value of the different stock foods, were most closely scanned. It was found to be universally true that as each successful feeder explained just what he was giving each cow each day, and then compared it with the scientific basis furnished by the speaker, they were in perfect harmony."

Continuing, Mr. Glendenning said that dairymen were fast finding out the value of different foods from an economic standpoint. Timothy has had its day, and the different kinds of clover are entering into almost every rotation.

WOMEN'S INSTITUTES.

Miss Blanche Maddock, of Guelph, who accompanied Mr. Glendenning, has nothing but the highest words of praise to say of the progress of Women's Institutes. "The women met and asked me to organize a Women's Institute in almost every riding," said Miss Maddock. "They see their husbands using improved machinery and thereby lessening their labor on the farm; they see cash in the form of bank cheques coming in from the creameries and cheese factories every month, and

they begin to see the necessity of improving their home surroundings."

One lady writes me that since Miss Maddock visited their section of the country several ladies had said to her, "why did we not think of this before?" "We had thought we knew all about housekeeping, and we believed that cleanliness was not only next to Godliness, but was pretty nearly everything. We have scrubbed our floors until they were fit to eat from, and then this young girl comes along and tells us in her bright and cheery way, that there is no use spending our energies and wasting our lives in this way when we do not propose to eat from this floor anyhow."

"Why use heavy pots and pans," said Miss Maddock, "when lighter ones are just as cheap and just as durable! Why put up with an old stove when a new one of modern design would do the work with half the fuel? Why worry and spend part of almost every night, making, mending, starching and ironing white dresses for our children when pretty bright colored patterns can be had which only require half the labor?"

Such letters as this are coming in almost daily from women who have listened to one or other of our lady delegates now in the field.

HOW WOMEN'S INSTITUTES HAVE GROWN.

In our last annual report we listed three Women's Institutes in active operation in the province. To-day we have received the names of officers and directors, and list of members from the twenty-third Women's Institute now organized and at work.

One secretary writes: "The Women's Institutes have solved the problem of our night meetings for Farmers' Institutes in our riding. We have felt that we ought to cater to the young people, both boys and girls, at each evening meeting, and in order to secure their presence and co-operation we have had to resort sometimes to forms of amusement that, while highly entertaining, were neither practical nor profitable. Now the ladies have come to our rescue. Short, practical talks on women's work are appreciated when interspersed between the addresses of our Farmers' Institute delegates, and not only fill in the evening meeting, but both old and young are highly delighted with the entertainment."

IN SIMCOE, GREY AND DUFFERIN.

Mr. A. W. Peart of Burlington, and Mr. J. E. Meyer, of Kossuth, passed through the city yesterday on their way home from Division 6. "On the whole we had good meetings," said Mr. Peart. "Mr. Meyer's

work on poultry was especially acceptable, and I am sure the good people in the north have taken home many practical ideas on this subject." "For myself," said Mr. Peart, "I was called upon at almost every meeting to discuss the 'Management of Soll.' Here I found every one interested. Some places they wanted fruit, in other places they asked for 'Insects and Fungi,' occasionally 'Wheat Growing,' but everywhere 'Solls.'" "I tried to show them," said Mr. Peart, "exactly what they were losing in dollars and cents from the growing of certain crops. I also tried to point out what was to be gained by the growing of clover and other leguminous plants.

NITROGEN.

"Compare a crop of clover," said Mr. Peart, "with a crop of wheat as it affects the fertility of the soil. If you plow under a crop of clover that will produce two tons to the acre, you add to your land exactly 90 lbs. of nitrogen. This nitrogen is appropriated from the free nitrogen of the air and costs the farmer nothing. The wheat plant has not the power to do this. Nitrogen is worth, in the commercial world when you go to buy it in the shape of a fertilizer, about 18c. per pound. You have here then a gain of \$16.20 per acre. Take a crop of wheat on the other hand, and you remove from your soil two pounds of nitrogen for every bushel of wheat and the straw which accompanies it. At 20 bushels to the acre you therefore take from your land 40 lbs., which, at 18c., amounts to \$7.20."

You have as a balance against this 20 bushels of wheat at the market price. This is the foundation principle of what is known as the "Norfolk Rotation," which is so popular in the Old Country. It is a four years rotation with roots, barley, clover and wheat in the order named. Many English farmers, by following this rotation have not only retained the fertility of their farms, but have actually increased it, although in constant cultivation for hundreds of years.

POULTRY.

One year ago last December the Provincial Winter Fair offered prizes for dressed poultry at their show held in the city of London. They also arranged with Prof. Graham, of the Agricultural College, Mr. J. E. Meyer, of our Institute staff, and Prof. A. G. Gilbert and his estimable wife, of Ottawa, to give practical talks and demonstrations on the different phases of the subject, with a view to improving this industry in Ontario. Our eyes were then opened to the possibilities of the poultry industry.

Acting under the instruction of the Minister we have this winter held practical poultry meetings and given instruction to more than 5,000 farmers and their wives and daughters.

Mr. A. G. Gilbert has charge of the meetings in the district east of Toronto; Mr. G. R. Cottrell and Prof. Graham are covering the western peninsula, while Mr. J. E. Meyer has addressed twenty meetings north of Toronto. All of these gentlemen agree on the following points:

1st. Our home markets are glutted with a lot of poor scrawny fowl.

2nd. There is an unlimited demand for plump, young birds.

3rd. Merchants in Toronto and Montreal are paying as high as 10c. per pound for chickens properly fed and dressed.

4th. A flock of chickens properly handled would return to their owner at least one dollar a head per year.

5th. A hen is not a profitable animal on the farm after two years of age.

6th. Pullets are the most profitable winter layers, but they must be hatched early.

7th. During the laying period, to get the best results, hens must be made literally to work for their living. Whole grain should be scattered each day in the litter, so that in hunting for it the hens will get exercise, keep healthy, and fill the egg basket.

8th. Ground bone is the best form in which animal food can be fed to laying hens. If this cannot be obtained meat scraps from the house, and an occasional liver, give good results.

9th. Grit must be supplied in some form, as in the absence of teeth it serves to grind the food in the gizzard.

10th. Laying hens must have access to some form of lime from which to manufacture the shells for their eggs.

IN THE OTTAWA VALLEY.

An Institute officer in North Renfrew sends in the following:

"Our Institute meetings this year have been successful indeed. You sent us only one speaker, but he has proved a host in himself, and we hope to have the pleasure of his company another year." The writer goes on to say—"The speaker advertised was Mr. Duncan Anderson, of Rugby, Simcoe County, and he proved to be a thoroughly practical Canadian farmer, capable of setting forth his experience in a common-sense, every-day way, which took well with his audience.

We have no doubt a brief sketch of his life will be interesting, not only to those who heard him, but also to those who may, we hope, hear him on a future occasion. Mr. Anderson was born in Glasgow (a fact patent to every one who hears him speak and knows the 'Glasca tongue'), and came to this country with his parents in 1862. His father took up land in the Township of Oro, County of Simcoe, on which farm Mr. Anderson now resides, besides owning another in the same township. When young he assisted in clearing the timber, stumps, etc., of the home farm. He has done every kind of work from swinging the old-fashioned cradle to running the modern binder. Beginning with a few common cattle he has now a select herd of good milking registered Shorthorns and a flock of high-bred Leicester sheep, besides a number of well selected hogs. With only a common school education, received in Scotland, he has so improved himself by home study as to be able to state his views in a clear, lucid manner, and also to conduct during the winter months the agricultural department of a country newspaper. Such was the man whom the people of Greenwood and Westmeath were invited to hear, and we are certain we are not disappointed."

Mr. Anderson firmly believes in keeping up the fertility of the soil by the use of stable manures and green clover. Three points he emphatically insists upon.

1st. You cannot make the seed bed too fine.

2nd. You cannot keep the fertilizers too near the top.

3rd. It is better to wait until the ground is warm in the spring before planting.

Mr. Anderson also says: "Farmers plow too deep and too often. In cultivated crops the surface soil has to be kept constantly stirred, but you waste your time and energy, and often do much harm, by plowing the average farm over and over again, each time turning up some poor soil from below and thereby bringing down the fertility of the surface." "Probably most farmers," said Mr. Anderson, "make most of their money nowadays by their by-products. With us at home poultry has become one of our sources of revenue. We have made a bargain with the women folks of the house that they are to have all the products accruing from the poultry trade if they pay for the feed. Last year they had 90 hens, and the amount realized from the sale of eggs and chickens was \$110.30. The cost of feed and loss was \$35.45, leaving a net profit of \$74.85." This, he claimed, was a good investment.

The Farm Home

The Plaintive Kettle.

"I don't feel well," the Kettle sighed.
The Pot responded, "Eh?
Then doubtless that's the reason, marm,
You do not sing to-day."

"But what's amiss?" The Kettle sobbed,
"Why, sir, you're surely blind,
Or you'd have noticed that the cook
Is shockingly unkind."

"I watched her make a cake just now—
If I'd a pair of legs,
I'd run away! oh, dear! oh, dear!
How she did beat the eggs!

"Nor was that all—remember, please,
'Tis truth I tell to you—
For with my own two eyes I saw
Her stone the raisins too!

"And afterwards—a dreadful sight!—
I felt inclined to scream!—
The cruel creature took a fork
And soundly whipped the cream!

"Now can you wonder that my nerves
Have rather given way?
Although I'm at the boiling point,
I cannot sing to-day?"

—Felix Leigh, in the Evangelist.

The Pocket-Book.

"Who steals my purse steals trash."
—Shakespeare.

We may not go so far as to call the contents of the pocket-book trash, for though not the only thing, yet it is very important, and it is also of great importance who shall handle said contents. Probably no subject has been written about oftener than the injustice of making the wife beg for money that should be hers by right.

Husband and wife should be equal partners, though at the time of their marriage he usually has the greater capital whether in cash, lands or stock, but if they take each other as true helpmates and he really and truly "her endows with all his worldly goods," then the property should belong to both. It should not be any longer my house and my land, but there should be an equal partnership, though I must not be understood to mean by this that the wife should have the right to sell off half the property and invest the money for her exclusive use or to present it to her grandmother. I mean that they should use all the income for the good of both. Also at the death of one the other should have any property left, though now, as the law stands, if the husband dies his wife has only a third or a half interest in the property.

However it is while they both live we are more especially interested. If they are equal partners—and surely if a man thinks enough of any woman to make her his wife, to give her the care of his home, his children and his happiness he can have no hesitation about making her a sharer of his property and his pocket-book. There should be no careless spending of money by either partner without the advice and consent of the

other. There should not be separate interests. One may have the work of grain-growing and grain-selling, stock-raising and stock-selling, while the other may have the care of the butter-making and poultry raising; yet it is not businesslike nor for the best good of the firm that the wife should be compelled to provide all groceries and clothing with the money she can make out of butter and poultry. Man often thinks himself a gainer when he limits his wife and daughters to this money, when he might look more closely into facts and see that he is losing money and his wife is not gaining.

Not long ago I remarked to two girls—grown-up farm girls—"I intend to make a fine pair of calves of those two," and they simultaneously answered, "Why, are they yours?" To which I replied, "Of course they are ours." They explained that they meant would I have the money from them when sold.

Where it is customary for the men to have the money from stock and the women receiving that made from butter, do we not the oftenest see poor calves? Calves stunted from being fed skim-milk too soon, with no extra added to take the place of the butter fat. And when fall comes the men find it necessary to give so much extra food to make good animals, and they are even then not so good as they would be were they pushed from the start. He never sees that he would have been money in pocket to have given his wife the price of that food for house expenses instead of having her make it out of that milk the calves might have got. The women think if they do not say it. "The calves belong to the men, and we'll never see a cent of the money from them. So what is the use in our taking pains with them."

The same may be said of poultry and eggs. I have seen women who actually think what they make out of eggs is clear profit, for they get the food from the granary, and take often what is most expensive. They take no pains to adopt cheap methods in poultry raising, nor to study cheap poultry foods. They often feed more money's worth of grain in a year than the hens produce. Yet the men do not see that it would be better to give the women this money and sell off the poultry, or what would be better let the woman understand that the pocket-book is open to her to add to or take from its contents as she thinks best, and that poultry raising can be made to pay both the husband and wife; that calf-raising, if well done, pays, besides being easier work than butter-making, and that it pays for both husband and wife to take an interest in all matters pertaining to the farm.

There may be extravagant women, but there are more men who spend

money for what is neither useful nor ornamental, such as cigars, etc.

It were better for the farming world if husband and wife were real partners, who neither buy nor sell without consulting the other. By this I do not mean that she should be taken along to decide on the merits of a new set of harness, or that he should be consulted as to the quality of the new dress, but before either is bought it should be decided that such purchase is necessary or advisable. I have known men who consider it advisable to leave all money in their wife's care, knowing that were it in their pockets when they go to town a great deal of it would be spent foolishly. This would not be necessary did they practice the equal partnership plan.

M. E. GRAHAM.

Seasonable Dishes for February.

Stewed Prunes.—It would appear that so simple a thing as a dish of stewed prunes might always be acceptably served, but they are usually too sweet or insufficiently cooked. All dried fruits—that is, fruits that have been deprived of their natural juices by quick evaporation or sun drying, need to have this juice or water replaced by a long soaking in cool water before being subjected to heat. This softens the cellular tissues so that they can absorb the water, the fruit swells out to nearly its natural condition; and then by the heat applied in cooking, the softening process is continued until every particle of the skin is, or should be, perfectly soft.

Just enough water to cover them, so that all may be equally softened, is all that is necessary, and when the prunes are sufficiently cooked this should boil down to a thick syrup. Except in some of the most acid varieties no sugar is needed. In fact many prunes are so rich in sugar that a little lemon juice seems to be an improvement. It is understood, of course, that the prunes should be well washed in tepid water before they are soaked.

Apple Pie.—Line a tin or granite plate with a thin crust. Cut sour apples in quarters, remove the cores and skins, and cut each quarter in two pieces lengthwise. Fill the plate, putting the pieces of apple round the edge in regular order, and piling slightly in the middle. When the apples are not juicy add a little water. Cover with crust without wetting the edges, and bake about half-an-hour. When nearly done, boil three heaping table spoonfuls of sugar and one of water five minutes. Add the grated rind of one-quarter of a lemon, or one tablespoonful of lemon juice. When the pie is done, remove to an earthen plate, pour the syrup through a cut in the top, or raise the upper crust and pour

it over the fruit, or simply sprinkle with sugar and bits of butter. Replace the crust; the steam will dissolve the sugar, and the pie will be sweeter and of better flavor than if sweetened before baking.

Steamed Rye and Indian Bread.—Two cups corn meal; 1 cup rye meal; $\frac{1}{2}$ cup molasses; $2\frac{1}{2}$ cups sweet milk; 1 teaspoonful soda; 1 scant teaspoonful salt. Mix in the order given, being careful to sift the soda, and turn into a buttered tin pail or fluted mould and stand it in a kettle of boiling water and steam four hours.

Brown Bread.—1 cup flour; 2 cups rye meal; 2 cups corn meal; 4 cups scalded milk; 1 cup cold milk; 1 cup molasses; 1 tablespoonful soda. Steam three hours.—*American Kitchen Magazine.*

Hints by May Manton.

Woman's Shirt Waist With Fitted Lining that may be Omitted.
No. 3716.

The shirt waist shows variations without number, but in all its forms retains the essential characteristics that have endeared it to the feminine heart. The smart design shown is admirable in every way, and will be found generally becoming. The slight fulness formed by the tucks means the soft, graceful folds that are so well adapted both to slender and stout figures, and the back gives just the tapering effect required by the latest mode. As illustrated the material is French flannel



3716 Shirt Waist,
32 to 50 in. bust.

in a pretty shade of pink, the buttons are of dull-finished gold, and the belt of flexible metal braid, showing stripes of pink and gold, held by a simple dull gold buckle. All the season's materials are suitable, however, taffeta, Henrietta, cashmere, Albatross, all the soft-finished satins and silk flannels.

The waist is made over a fitted lining that closes at the centre front. The fronts proper are laid in three tucks at

each shoulder, below which they fall free to the waist, where the fulness is arranged in gathers. Down the centre is applied a tapering box plait that is stitched near each edge, permanently to the right front and hooked over invisibly or buttoned onto the left. The back includes three tucks that correspond with and meet those of the fronts at the shoulder seam, are stitched in the back to the waist line, where they lap with slight fulness. The sleeves are in bishop style, finished at the wrists with pointed cuffs. At the neck is a standing collar that also is finished with a point and is lapped over at the centre front.

To cut this waist for a woman of medium size 4 yards of material 21 inches wide, $3\frac{5}{8}$ yards 27 inches wide, $2\frac{3}{4}$ yards 32 inches wide, 2 yards 44 inches wide, will be required.

The pattern No. 3716 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.

A Noble Dog.

The Paris *Temps* relates the pathetic story of a Great Dane which will find its place in the records of the history of famous dogs. A Parisian gentleman, it appears, who had sold his country seat in the suburbs, was obliged to part with his colossal and clever Dane, whom he could not accommodate in his apartments in the capital. A gamekeeper of his acquaintance offered to take the animal, soon to discover that the dog was endowed with a sounder appetite than his own meagre kitchen could satisfy. So he decided to get rid of him. Not finding a purchaser, he resolved to drown him.

Having tied a heavy stone by a string to the dog's neck, he got into a boat on the neighboring river and pulled out with the animal into mid-stream. There he gripped the poor brute and threw him overboard. But the string broke and the dog started to swim for the boat. When he was quite near the gamekeeper swung an oar and hit the dog smartly, so that the water was stained with blood. The poor fellow still kept swimming for the boat, because the banks of the river were wide apart. This exasperated the gamekeeper. He seized the oar and swung it with all his might, so that he lost his balance and fell into the water. Death now stared him in the face, for he could not swim.

And, behold! the noble brute whom he had tried to drown came to his rescue and held him up by his teeth till he could scramble into the boat again. Then both reached the bank, the dog swimming, the man paddling. This incident brought about a change in the feeling of the gamekeeper toward the dog. He dressed the wound made

by the oar on the beast's head, and now declares, in telling the story, that death alone shall part him from his canine friend.

Hygienic Value of a Beard.

Hair on the face is not worth very much from a hygienic standpoint, according to Gabriel Prevost. In an article translated in the *Medical Times*, he says:

"Scarcely under the form of heavy moustaches shading the lips can it invoke service by hindering the introduction into the lungs of too cold air; and yet it should not pride itself too much on this. In return for less than the greatest neatness it is filthy, and physiologically it is a net of microbes. It is evident that the inspiration of the air tends to accumulate dust there, as it does in a broom. The least trace of foods, liquid or solid, soils it and makes it an object of disgust; odors, good or bad, choose a dwelling place there, and, finally, laziness about shaving is the only argument to put forth by those who praise it. From a bacteriological point of view it is almost un- luckily the receptacle of dangerous microbes, to which it serves at the same time for a habitation and a vehicle. Let us have the courage then to declare that we cannot understand how any one can persist in this, least of all the physician or the soldier, two existences everywhere comparable by their forced contact with promiscuous people. The absurd prejudice still remains that the development of the hairy system coincides with that of strength. In this case we refer the fanatics of the beard to Antomarche, who made the autopsy of Napoleon. The conqueror of Wagram had not a hair on his breast. He did not have, besides, one on his hand

The Way to Keep Cider.

Cider will keep if it is boiled, reduced at least one-third and then bottled. A raisin or a few mustard seeds may be put in the bottle previous to pouring in the cider. The corks must be fastened with wires and the bottles be placed in a dark, cold closet.—*January Ladies' Home Journal.*

No Humor in Them.

Giles—I don't like the barber's funny anecdotes.

Miles—Why, what's wrong with them?

Giles—The illustrations are painful.

Miles—The illustrations?

Giles—Yes; he uses original cuts.—*Chicago News.*

AN EXPERIENCED HOUSEKEEPER

WISHES situation on a farm. Would go to Manitoba.

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possess accuracy and endurance under all conditions and in all degrees of temperature.
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Wide-Tire Wheels
Made to fit any axle.
They are lighter, stronger and much cheaper than wooden wheels.
Wrought Iron Wheels with Wide Tires
should be used by every farmer, in fact by everyone who has a wagon.
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DEPT. A. TORONTO, ONT.

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A PAPER FOR FARMERS AND STOCKMEN.

Publisher, D. T. MCAINSH
Editor, J. W. WHEATON

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QUESTIONS AND ANSWERS

Age of Calf for Showing.

A subscriber at Stamstead writes: "One agricultural society by its rules computes the age of cattle from August 1st, another society computes the age from September 1st. Can a calf dropped in October, 1900, be shown as a calf according to the rules of above societies at both exhibitions held in August, 1901?"

There are no uniform rules governing agricultural societies in awarding prizes, etc. Each society makes its own rules, and exhibitors are governed accordingly. It would be better, perhaps, if there were more uniformity in the rules governing such organizations. A calf dropped in October, 1900, could certainly be shown as a calf or animal under one year at fairs held in August, 1901. This is governed entirely by the date fixed for computing the age to. For example, at the Provincial Winter Fair the age of fat cattle exhibited is computed to September 1st, and the show does not take place till the middle of December, but all animals under one year on September 1st are eligible to be shown in the calf classes in December, though they may be a couple of months over the year when the show takes place. In the question at issue, a last October calf would be only about ten months old on August 1st and about eleven months on September 1st, 1901, and could certainly be shown at either shows held in August of that year in the calf classes.

RIPPLEY'S COOKERS.

Sell from \$10.00 to \$15.00. Made of boiler steel. No flues to rust or leak. Can't blow up. Guaranteed to cook 35 bu. feed in 2 hours, and to heat water in stock tanks 200 feet away. Will heat dairy rooms. Catalogue and prices mailed free.
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WANTED a good reliable man to represent THE FARMING WORLD. One with a horse and rig preferred. A good income guaranteed to the right man. References required. A chance for farmers' sons during the winter months. Address at once:
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GOMBAULT'S Caustic Balsam
The Great French Veterinary Remedy.
A SAFE, SPEEDY AND POSITIVE CURE.

Prepared exclusively by J. E. Gombault, Veterinary Surgeon to the French Government.

SUPERSEDES ALL CAUTERY OR FIRING
Impossible to produce any scar or blemish. The greatest heat Blister ever used. Takes the place of all liniments for Hives or severe itching. Removes all Hives or Blisters from Horses or Cattle.
As a HUMAN REMEDY for Rheumatism, Sprains, Gout, Throat, Etc., it is invaluable.
WE GUARANTEE that one tablespoonful of our more active remedy than a whole bottle of any liniment or spavin cure mixture ever made.
Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.00 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

New Brunswick Farmers Meet.

The Annual Convention of the Farmers' and Dairymen's Association of the province of New Brunswick took place at Fredericton on Jan. 23, 24 and 25 last. It was a well attended gathering and aroused considerable interest among the farmers of the province. The addresses and discussions covered the varied branches of live stock husbandry, dairying and general farming. Among the notable speakers who addressed the convention were Hon. Sydney Fisher, Dominion Minister of Agriculture, F. W. Hodson, Dominion Live Stock Commissioner, R. Robertson, Superintendent of the Maritime Experimental Farm, Nappan, N.S., Hon. Mr. Chipman, Secretary of Agriculture for Nova Scotia, F. C. Hare, Superintendent of Government Poultry Fattening Stations, W. H. Hubbard and others.

The subjects treated of by the various speakers were: Profitable horse breeding; profitable milk production; possibilities of the pork industry, sheep raising, agricultural education, etc. In his chief address Mr. Fisher dealt with the possibilities of New Brunswick as an agricultural country. He advocated the highest education and most liberal training for the man who is to make farming his life work. He was glad to note that an agricultural school is to be established in the Maritime Provinces. The pork industry is one that the farmers of that province could take up and make a success. He had been thoroughly impressed with the exceptional opportunities for profitable farming in New Brunswick but had been struck with the lack of utilization of these opportunities. Mr. Hodson's main address was on the development of the bacon trade, which he dealt with in his usual clear style. We have secured copies of some of the addresses given which we may utilize later.

Good Roads Meetings.

Mr. A. W. Campbell, Good Roads Instructor, will attend meetings as follows during the next few weeks: Bertie Township, February 5; Simcoe County convention, Barrie, February 7; South Norwich Township, February 12; Clarke Township, February 13 and 14; Ottawa, convention of County Councils in district, February 15; Fullarton Township, February 19; Welland County, series of meetings, February 20 to 23; Osgoode Township, February 26 and 27; Caledon Township, March 5.

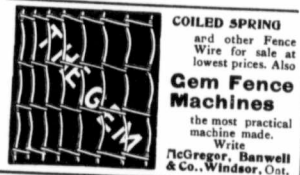
Live Stock Dealers Organize.

An important organization was formed at the Toronto cattle market a week ago when the cattle dealers and drovers from all parts of the province decided to form what will be known as the Dominion Live Stock Dealers' Association. The new Association will devote its energies chiefly to furthering the inter-



No crop can be grown without Potash. Supply enough Potash and your profits will be large; without Potash your crop will be "scrubby."

Our books, telling about composition of fertilizers best adapted for all crops, are free to all farmers.
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No.	Holds	LIST I	CRURNS
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1	10 "	1 to 6 "	
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3	20 "	3 to 9 "	
4	25 "	4 to 12 "	
5	30 "	5 to 14 "	
6	40 "	6 to 20 "	

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SKUNK I pay highest prices for all kinds of Raw Furs and Ginseng. Write for price list. J. J. GLEED, East Aurora, N.Y.

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.

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GOLD WATCH FREE

and a Handsome Prize for every correct answer. This is a Puzzle Picture, with a boy concealed. If your eyes are wide open, and you examine the picture closely, perhaps you may be able to find him. When you have done so, take a pencil and mark the outlines of his face and body, then clip it out and return to us with your name and address written very plainly, and enclosed in your letter enclosing six one-cent stamps for postage and packing expenses. The first person sending in a correct answer will receive a Beautifully Engraved, Gold-Plated Hunting Case Watch, and all others will receive Handsome Prizes. ART SUPPLY CO., Box 2605 Toronto.



HAWKEYE GRUB AND STUMP MACHINE

Works on either Standing Timber or Stumps. Pulls an Ordinary Grub in 1 1/2 Minutes. Makes Clean Sweep of Two Acres at a Sitting. A man, boy and a horse can operate it. No heavy chains or rods to handle. You can no longer afford to pay taxes on unproductive timber land. Illustrated catalogue free, giving prices, terms. MILNE MFG. CO., 642 8th St., Monmouth, Ill. Address Milne Bros. for SHELAND PRY Catalogue.



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- POINTS OF MERIT:**
1. To change from pulping to slicing is but the work of a moment.
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THE ONLY DOUBLE ROOT CUTTER MANUFACTURED
Fitted with ROLLER BEARINGS, STEEL SHAPING, and all that is latest and best in principle, material and construction.

TOLTON BROS., GUELPH, Ont.

ests of the export trade. Excessive freight rates will also be dealt with and other matters affecting the interests of the live stock trade from the dealers' point of view.

A strong executive was elected, consisting of the following: John Dunn, Toronto, President; E. Snell, Galt, First Vice-President; Thomas O. Robson, St. Mary's, Second Vice-President; F. Hunnisett, Toronto, Secretary-Treasurer. Executive Committee—Bernard Coughlin, London; T. Coughlin, London; Alexander White, Guelph; William Levack, Toronto; Sylvester Halligan, Toronto; John Brown, Galt; Thomas Crawford, Toronto; James Follis, Brampton, and Ellsworth Maybee, Toronto.

Fruitmen Want More Money.

A meeting of the Executive Committee of the Ontario Fruit-growers' Association was held at Parliament buildings last week. There were present Messrs. W. M. Orr, Winona; L. Woolverton, Grimsby; T. H. Race, Mitchell, and A. M. Smith, St. Catharines. The business of the meeting was to select new varieties of fruit, obtained in various quarters, for trial at the fruit experiment stations throughout the province next year. Subsequently Mr. Orr and Mr. Race waited upon Hon. Mr. Dryden and asked for an increase in the association's grant

from \$1,800 to \$2,500 per year. It was contended that the demand for lecturers for local horticultural societies, which are furnished by the association, had become so large that it could not be fully met with the present grant.

Dominion Grange.

The twenty-sixth annual meeting of the Dominion Grange was held in Toronto last week. Some important resolutions were passed endorsing the appointment of a railway commission, the introduction of free rural mail delivery, and regarding the drainage of water through railways, the laying of electric tracks on highways, etc. The officers for 1901 are: W.M., Jabel Robinson, M.P., Middlemarch; W.O., John McDougall, Milton; W. Secretary, Wm. F. W. Fisher, Burlington; W. Chaplain, W. Oke, Whitby; W.V., James Fallis, Newbridge; W.L., Hy. Grose, Lefroy; W. Steward, Samuel Goodfellow, Duncan; W.A.S., W. W. Lane, Blenheim; W.G., Wm. Gray, Londesboro'. Lady officers: Ceres, Mrs. E. Brown, Whitby; Pomona, Mrs. W. Gray, Londesboro'; Flora, Mrs. J. Robinson, Middlemarch; L.A. Steward, Mrs. W. W. Lane, Blenheim. Auditors: J. G. Chapman, St. Thomas, and O. W. Quantz, Painswick. Executive Committee: Geo. E. Fisher, Freeman; Hy. Glendinning, Manilla.

AGENTS WANTED

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 bill: fifty per cent. Meats 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.



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Adelaide Street East - TORONTO, ONT.

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.

"RICE'S or COLEMAN'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.



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.

A series of special horse sales is to be held at the Union Stock Yards, Chicago, this spring. The effort will be made to obtain large consignments to these sales and the commission charges for selling will be \$3 per horse. The idea is to give dealers with large orders an increased opportunity to fill them advantageously and quickly.

Superintendent F. A. Converse announces that he is planning to accommodate 1,000 horses at the coming Pan-American Exposition. The horse show will not be held until October. The breeds that will be recognized are the Thoroughbred, Standard-bred, French Coach, Cleveland Bay, Oldenburg and other German Coachers, Hackney, Morgan, Arab, Belgian, Percheron, Clydesdale, Shire, French Draft, Suffolk, Shetland ponies, and classes will be provided for jacks, jennets and mules. A feature of the equine exhibit will be the classes for cavalry and artillery purposes.

Cattle

Mr. W. S. Marr has acquired from Mr. J. D. Willis, at a long price, the very pretty bull calf, Bapton Diamond, which was first last year at the great Yorkshire Show, the only time shown. Mr. Sanders, of the *Breeders' Gazette*, in his recent notice of Mr. Willis' stock, described this as the best calf, taken all round, that he had seen in Great Britain. A high price was offered last year for the calf for

cer Borden, Fall River, Mass.; third vice-president, M. H. Purkey, Youngstown, O.; secretary and treasurer, M. A. Cooper, Washington, Pa.

Last week Messrs. Mansell & Co., shipped from Liverpool thirty-two high-class Shropshire sheep to the order of Mr. Duncan, manager of the Niagara Stock Farm, U.S.A. Twenty of them were ewes selected from the carefully bred flock of Mr. T. G. Jukes, of Tern. The others were ewe lambs and ram lambs, the former being bred by the representatives of the late Mr. W. Nevett, and the latter by the Messrs. Evans.

Swine

At a meeting of the American Poland-China Record Association held at Dayton, Ohio, on January 23, a resolution of importance adopted was that the arrangement of the pedigrees in the Record be continued numerically but not alphabetically, so that hereafter the number of the animal is given on the certificate when such is issued, soon after pedigree is sent in for record. The price of Vol. XXII, published in 1900, will be two dollars, delivered free by express. The resolution that stockholders be permitted to record pedigrees for a fee of 50 cents, did not pass, as the majority of stockholders would rather pay the fee of one dollar than to have their record filled up with pedigrees of inferior and barren animals, which would be the consequence of low re-

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.

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142 McGill St., MONTREAL, Que.

Thomas - Phosphate

FOR SALE CHEAP

We have a quantity of the far-famed Thomas Phosphate Powder for sale at

\$15.00 PER TON.

An opportunity for farmers to try this famous fertilizer at small cost.

Guaranteed 18 per cent. Phosphoric Acid.

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Light, Strong, Convenient and Cheap.

Port Colborne, April 10, 1900.

Dear Sir—Have you an agent here for your goods? The ladder seems to be

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Market Review and Forecast

Office of THE FARMING WORLD,
Confederation Life Building,
Toronto, Feb. 4, 1901.

Business in wholesale lines is rather quiet. Money is steady at 5 to 5½ per cent. on call, and discount rates on commercial paper are steady at 6 to 7 per cent.

Wheat.

Though there has been considerable activity at Chicago and other large wheat centres during the week, it has been largely due to the speculative element. Those in the legitimate trade report values west of Chicago as being 5c. to 10c. too high. There seems to be nothing in regular trade conditions to warrant any advance in prices. But speculators are at work, and farmers, as we advised last week, should watch the markets closely, and sell when any quick advance in prices takes place. Towards the end of the week cables were dull and values declined. The growing wheat conditions now under snow continue promising. The marketing is becoming light. Local trade has been rather dull. Shippers' quotations here are 65 to 65½c. for red and white middle freights; goose wheat 67c., and spring at 68c. east. No. 1 Manitoba hard is quoted at 98 to 99c., Toronto. On the farmers' market here red and white bring 68½c. to 70c., spring five 69½c. and goose wheat 65c. per bushel.

Oats and Barley.

The rather bright outlook for marketing large quantities of Canadian oats in Great Britain this season has been dampened somewhat by the larger offerings of Russian oats, and a big crop in Germany. Though dealers here are not looking for any big advance in prices, the market is likely to run steady. 27 to 29c. at Ontario are the ruling figures for shippers' quotations according to point of shipment. On Toronto farmers' market oats bring 31½ to 32c. per bushel.

The barley market is quiet though steady at 40 to 41c. at Ontario points. On the Toronto farmers' market barley brings 47 to 48c. per bushel.

Peas and Corn.

Canadian white peas are in good demand in Britain and prices there are firmer. There has been an advance of 1c. on prices in Ontario where shippers' quotations range from 62 to 63½c. per bushel. On the farmers' market here peas bring 64c. per bushel.

There is said to be a squeeze on in corn in the west, where prices have advanced 4c. per bushel. Supplies, however, appear ample for all requirements. No. 3 American is quoted here at 44½c. in car lots Toronto.

Bran and Shorts.

Ontario bran at Montreal is quoted at \$17 to \$17.50 per ton in car lots, Manitoba at \$17 in bags, and shorts at \$18 to \$18.50. City mills here sell bran at \$15 and shorts at \$16 in car lots f.o.b. Toronto. Shippers here quote bran at \$13 to \$15.50, and shorts at \$13.50 to \$14.50 in large lots at western points.

Eggs and Poultry.

The English egg market has improved, and prices there are firmer. At Montreal the market is steady at about last week's figures, or 22 to 25c. for new-laid in case lots. There are said to be quite a few cold storage eggs seeking a market. There is a fair demand here, and trade is more active. New-laid are selling at 20 to 21c. in case lots. On Toronto farmers' market new-laid bring 24 to 25c., and held stock 18c. per dozen.

Choice fresh turkeys sell at Montreal at 9 to 9½c.; chickens, 7½ to 8c.; ducks, 7½ to 9c.; and geese 6 to 6½c. per lb. in round lots. Receipts of dressed poultry here are small, with little inquiry. Turkeys sell at

9 to 10½c. and geese 7 to 8c. per lb., and chickens at 50 to 65c. per pair in a jobbing way. On Toronto farmers' market turkeys bring 10 to 12c. and geese 7 to 9c. per lb., and chickens 40c. to \$1, and ducks 75c. to \$1.25 per pair.

Potatoes.

Car lots of Ontario potatoes are quoted at Montreal at 45 to 47½c. per bag of 90 lbs. each. The market here is quiet at 28 to 30c. for cars on track. On farmers' market potatoes bring 30 to 35c. per bag.

Hay and Straw.

There seems to be quite a boom on in Canadian hay in Great Britain with prospects of still higher prices in the near future. Some large purchases have recently been made in Canada on English account, and one shipper is reported to have sent forward 80 carloads during the week. Montreal prices are firm with an upward tendency at \$11 for No. 1 baled hay, \$9 to \$10 for No. 2, and \$8 to \$8.50 for clover. The market here is active and steady at \$10 to \$10.50 for No. 1, and \$9 to \$9.50 per ton for car lots of baled hay on track. Car lots of baled straw are quoted at \$5 to \$5.50 per ton. On Toronto farmers' market hay brings \$13 to \$14, sheaf straw \$9 and loose straw \$7 per ton.

Seeds.

There seems to be a very good demand for seeds. Holders of red clover seed are firm. Montreal quotations are: Red clover, \$7 to \$9; alsike, \$7 to \$9; timothy, \$2.50 to \$3, and lax seed \$2 to \$2.25 to the trade. On Toronto farmers' market quotations are \$5.75 to \$6.75 for alsike, \$6 to \$6.50 for red clover, and \$1.40 to \$2 per bushel for timothy.

Cheese.

The English market keeps steady and consumption of cheese is increasing. Holders on this side seem more ready to dispose of their holdings at current values and are filling English orders pretty readily as they arrive. Prices, however, have been somewhat irregular. Sales of finest westerns have been made at Montreal at 11¼c., while it is true that goods of equal quality have been offered at 10½ to 10¾c. per lb. Though stocks are light in England, buyers there continue to limit their orders and buy on a hand-to-mouth plan.

Butter.

At the recent decline there has been a steadier market in England, with a good demand at the lower range of prices. The Trade Bulletin of last week sums up the butter market as follows:

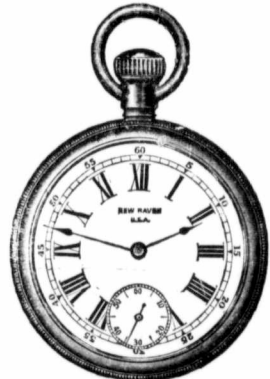
"The market remains firm, but holders generally admit that the demand has been very slow during the past week, although a little more enquiry is noticed at the close. As regards prices, they continue to hold up fairly well, 22½ to 23c. being the quoted rates for finest creamery, and seconds at 21 to 21½c. A dealer stated to day that it would be difficult to get over 22c. for a lot of 100 pkgs. of finest goods. To jobbers sales have been made at 22½ to 23c. In view of the approach of Lent and continued light receipts, butter should be good property at present prices. In dairy, a few fodder-made Eastern Townships have sold at 20½ to 21½c. as to quality. Western dairy has sold at 18 up to 19½c., and 20c. for choice, and Manitoba dairy at 16½ to 17½c. as to quality. As soon as there is a call for more of this class of butter an additional two cars are ready to come forward."

The market for creamery butter is steady here at 22 to 24c. for prints and 21 to 22c. for solids. Improved weather conditions have been productive of heavier shipments of dairy butter. This market keeps steady at 17 to 19c. for rolls, and 16 to 18c. for tubs in a jobbing way. On Toronto farmers' market pound rolls bring 18 to 23c. each.

Cattle.

American markets have ruled steady during the week, with good to prime steers quotable at Chicago at \$5.10 to \$6 per cwt. At Toronto cattle market on Friday the run of live stock consisted of 655 cattle, 657 hogs, 538 sheep and 12 calves. The quality of the fat cattle offered was fair. Several lots of very good exporters as well as butchers' cattle have come forward during the week. Trade has been fair for the best cattle in both classes, but very slow for medium to inferior grades. Prices toward the end of the week were if anything a little weaker for shippers. Milch cows of choice quality are wanted, but there are very few offering. The veal calves offered of late have not been good, and made up mostly of too many of the same class.

About this Watch



FIRST—It is made by one of the best manufacturers in the world. Every one is guaranteed.

SECOND—It is a good timekeeper—in fact so good that many railway conductors rely on it.

THIRD—It is strong, and will stand the rough and tumble, the dust and damp of every-day wear.

FOURTH—The case is nickel-finished, and looks just as well as solid silver. With ordinary wear it will keep its color for two or three years—much longer with care. The works will last ten or fifteen years.

FIFTH—It has a stem-wind and a stem-set. No key to lose; no key-hole to let in dust.

OUR OFFER: Any one sending us six new subscribers to

THE FARMING WORLD will receive one of these fine Watches, carefully packed in wooden box, post-paid, Free. Or we will send the Watch for three new subscribers and one dollar in cash. Or any subscriber whose subscription is paid up may have one for \$2.00. Your money back if you are not satisfied.

"The Farming World" is published every week, only \$1.00 per year.

You can earn one of these watches in one afternoon.

Address THE

Farming World,
Confederation Life Building,
TORONTO.

Export Cattle.—Choice loads of these are worth from \$4.60 to \$4.75 per cwt. and light ones \$4.25 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. Loads of good butchers' and exporters' mixed sold at \$4.00 to \$4.25 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 \$4.40 per cwt., good cattle at \$3.50 to \$3.75, medium \$3.15 to \$3.30, and inferior to common at \$2.25 to \$3 per cwt.

Feeders.—Heavy, well-bred steers, from 1,000 to 1,150 lbs. each, sold at \$3.60 to \$3.90 and other quality at \$3.40 to \$3.60 per cwt. Light steers, weighing 800 to 900 lbs., sold at \$3 to \$3.25 per cwt.

Stockers.—Yearling steers, 500 to 600 lbs. each, sold at \$2.25 to \$3 off colors and inferior quality at \$1.75 to \$2 per cwt. Yearling bulls, 600 to 900 lbs. each, sold at \$2 to \$2.25 per cwt.

Calfes.—These are in active demand at Buffalo, choice to extra bringing \$8.50 to \$8.75 per cwt. At Toronto market calves bring \$3 to \$10 each.

Milk Cows.—These sell at from \$20 to \$50 each.

Sheep and Lambs.

Sheep and lambs were easier at the end of the week owing to there being no available room for export sheep or vessels. Besides the quality of the lambs offered was not good, generally speaking. Good grass-fed wether and ewe lambs should bring \$4.75 per cwt., but very few of this class are offering. Lambs sold at \$3.75 to \$4 each, and \$3.50 to \$4.50 per cwt. Sheep were easy at \$3 to \$3.25 for ewes and \$2.50 to \$2.75 per cwt. for bucks. The Buffalo market continues good with steady prices reported.

Hogs.

As was shown in our quotations of the Wm. Davies Co.'s prices last issue, prices for select bacon hogs dropped to \$6.25, and light and thick fats to \$5.75 per cwt. Unculled car lots sold at \$6 to \$6.10 per cwt. The Wm. Davies Co., Toronto, will pay \$6.25 per cwt. this week for select bacon hogs and \$5.75 for light and thick fats.

Prices at Montreal also show a rather further decline to \$6.25 per cwt. for bacon hogs. The *Trade Bulletin's* London cable of Jan. 31 *re Canadian* reads thus: "Contrary to all expectations, the market for Canadian bacon has taken a dull turn. This condition of affairs has been brought about by larger offerings from your side as well as from Denmark, and prices have declined 1s. to 2s. per cwt."

On Toronto farmers' market dressed hogs bring \$7.50 to \$8 per cwt.

Horses.

Over 45 head of horses were sold at Grand's Repository on Tuesday last. General purpose horses, 1,200 to 1,350 lbs. each, sold for \$85 to \$135, well-bred drivers at \$100 to \$125 each, and useful horses that have been in use about the city at \$40 to \$65 each. Mr. Chapman, whom we referred to last week, sends forward his first shipment of horses on Tuesday of this week. Preparations are now under way for a big sale of thoroughbreds at Grand's on March 12. See announcement next issue.

Useful Birds.

The chickadees, nuthatches, tree-creeper and kinglets are great devourers of all sorts scale insects and aphides or plant lice and their eggs and the presence of a flock of these birds in an orchard through the winter is the best safeguard we can have against damage by these insects next summer.

HERE IS HEALTH

FREE

These Four New Preparations comprise a complete treatment for all **Throat and Lung** troubles, also a **Positive Cure for Consumption.** The Food-emulsion is needed by some, the Tonic by others, the Expecto-rant by others, the Jelly by others still, and all four or any three, or two, or any one may be used singly or in combination according to the exigencies of the case. Full instructions with each set of four free remedies, represented in this illustration.



This is a Positive Cure for all Throat and Lung Troubles, also

CONSUMPTION

THESE FOUR REMEDIES

Represent a **New** system of medicinal treatment for the **weak**, and those suffering from **wasting** diseases, **weak lungs**, **coughs**, **sore throat**, **catarrh**, **consumption**, and **other pulmonary troubles**, or inflammatory conditions of **nose**, **throat** and **lungs**.

The treatment is **free**. You have only to write to obtain it. By the system devised by DR. T. A. SLOCUM, the specialist in pulmonary and kindred diseases, the needs of the sick body can be condensed into his treatment by four distinct preparations.

Whatever your disease, **one** or **more** of these four remedies will be of benefit to you.

According to the exigencies of your case, fully explained in the treatise given free with the free medicines, you may take **one**, or any **two**, or **three**, or **all four**, in combination.

The four together form a panoply of **strength** against disease in whatever shape it may attack you.

THE FREE OFFER.

To obtain these four **FREE** invaluable preparations, illustrated above, simply write to THE T. A. SLOCUM CHEMICAL CO., LIMITED, 179 King Street West, Toronto, giving post-office and express office address, and the free medicine (The Slocum Cure) will be promptly sent. Sufferers should take instant advantage of this generous proposition, and when writing for them always mention this paper.

Persons in Canada seeing Slocum's free offer in American papers will please send for samples to the Toronto laboratories. Let no previous discouragements prevent you taking advantage of this splendid free offer before too late.

Ideal Milk Ticket

THE old-fashioned pass-book has been discarded by every up-to-date factory.

The Monthly Statement Card below shows exact size front and back. It is made of stout Manilla, and can be either delivered by the milk-hauler, or sent to the patron in an ordinary envelope.

The Cards are now ready; Order Early.

Price, 25c. for 100; or a package of 1,000 for \$2.00, Post-Paid.

A factory with 100 patrons would require from 800 to 1,000 tickets during the season.

Monthly Statement

Of Milk delivered at the _____
 Factory during the month of _____
 By _____

PUBLISHED BY THE FARMING WORLD, TORONTO

1900	1ST WEEK	2ND WEEK	3RD WEEK	4TH WEEK	5TH WEEK
	LBS.	LBS.	LBS.	LBS.	LBS.
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Weekly Totals					
Per cent. of butter fat in milk					

Total milk supplied for the month.....lbs.

Total butter-fat supplied for the month.....lbs.

On the dates underlined the milk was sour or badly tainted.

The butter-fat test covers the milk supplied for the week or weeks intervening between the last test and the one indicated by the per cent. of fat in above table.

Mistakes or complaints, if reported to the maker or the secretary, in writing, will be promptly attended to.

Read carefully and observe the rules, governing the care of milk, on the back of this card.

(FRONT)

THE CARE OF MILK

The quality and value of cheese or butter is determined, very largely by the flavor. Nearly all the injurious flavors found in the finished product are traceable to the milk before it reaches the factory. Hence the importance of the patron giving the milk the very best care and attention.

The following rules, if carefully observed and followed, will greatly aid in obtaining a pure-flavored milk:

1.—Cows should have at all times an abundance of good, wholesome, succulent food. No food that will produce bad flavors in the milk, such as turnips, turnip tops, etc., should be fed to cows supplying milk to cheese or butter factories.

2.—Good pure water should be supplied and cows should have access to salt at all times.

3.—The milking should be done in the most cleanly manner. Brush the udder of the cow carefully before commencing to milk. Milk with dry hands.

4.—When finished milking, remove the milk to a place where the atmosphere is pure and strain immediately through a wire strainer.

5.—Thoroughly aerate the milk before cooling it. This can be done by stirring or hailing with a long-handled dipper or by pouring the milk several times through some suitable aerator. The morning's milk should be aerated as well as the night's milk.

6.—Keep milk over night in a place where the surrounding air is pure. Milk in pails hung a few feet from the ground will keep in good condition over night. If it is not possible to do this do not keep the milk in too large quantities in the milk cans.

7.—It is not necessary, unless the weather is extremely warm or it is required to keep milk from Saturday till Monday, to set it in cold or ice water.

8.—Give special attention to keeping the cans, pails, etc., clean; no wooden vessels should be used. Wash cans and pails first with luke warm water, then scald them thoroughly with boiling water and place to dry where the direct rays of the sun will reach them.

9.—If whey is returned in the milk cans, have it emptied as soon as the milk hauler returns from the factory and the cans thoroughly washed and aired as above.

By carefully observing these brief rules no milk need be returned from the factory sour or with a bad taste, and the patron will find his profits from the factory increased by the enhanced value of the product that can be made from good, pure milk supplied his cheesemaker.

(BACK)

Address :

The Farming World

Confederation Life Building, Toronto

"Joliette" Grinders



Highest Award
of Paris and
Chicago.

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guaranteed. Don't buy
until you have seen our
latest improvements.
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and Prices.

S. VESSOT & CO., JOLIETTE,
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Windsor Salt

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a better article, which brings
the highest price.

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over 100 illustrations of Poultry, Incubators, Brood-
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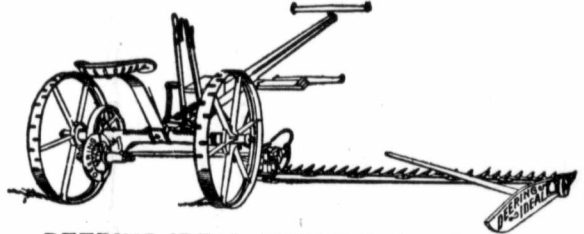
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What there
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And in this way pays
for itself.

If you do not Believe
it, try one.

CREAMER SKIM MILK

163 LBS. READY FOR THE PIGS
YIELD 35 OUNCES OF BUTTER.

AN EVERYDAY STORY RETOLD

SOPERTON, JAN. 14TH, 1901.

GENTLEMEN,—

On January 1st, I allowed your agent at Delta, Wm. Johnson, to
place a No. 2 Alpha Cream Separator in my house on trial. He took
163 lbs. of skim milk that we had ready for pigs, milk that had been set
in creamers for 24 hours, and skimmed as close as we could skim it. We
did not think the Alpha could get any more cream out of it, but to our
surprise took out of the 163 lbs. enough to make 1 lb., 15 oz. of butter,
for which we received 40 cents from agent, who wanted it to exhibit.

We also made another test by putting one mess of milk in creamers
for 24 hours: from this we got 7 lbs. butter. We then separated same
amount with the Alpha and got 9 lbs. Gentlemen, I am fully convinced
that the Alpha is a labor-saving and money-saving machine, runs easy
and comes up to the recommendation you gave it. I intend using one
while I am in the butter business. Wishing your Company and agent
success.

Yours truly,

JOHN FRYE

Soperton, Ont.

When writing to or purchasing from our advertisers, it
will be to your advantage to mention THE FARMING
WORLD.