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The Farming World

For Farmers and Stockmen

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Important Facts for Canadian Breeders

The Argentine as a Market for our Pure-Bred Stock

R. A. J. THOMPSON, whose remarks as to the quality of Canadian beef cattle were commented upon at some length in last week's issue, gave some interesting facts in the interview referred to in regard to agricultural conditions in the Argentine, which are well worth noting. He referred to the Argentine as likely to become the greatest stock-raising and farming country on the continent. It possesses the finest grazing lands in the world, and for the last twenty years the men interested in cattle raising have been shipping the best blooded stock that could be obtained in Europe into the Republic. Bulls worth from \$1,000 to \$9,000 and rams from f_2 to 1,000 guirleas are frequently imported, and cattle breeders have worked their stocks up to a very high grade. Fully 60 per cent of the stock raised on the ranches are a good type of export cattle. Sheep are not raised by thousands but by millions. The country had twice as many cattle as it could export, but every year the shipping facilities were being increased until the shipment of live cattle to Great Britain was prevented by the embargo of a couple of months back. Mr. Thompson points out that if this trade had not been stopped the country would have become the greatest rival of Canada and the United States, as Argentine export cattle can be produced at a cost of four cents per pound, and the stock was as well fleshed as the Chicago corn fed cattle.

The remarks of Mr. Thompson in regard to the large demand in the Argentine for pure-bred stock, following closely upon the opinion of Capt. Pearse as expressed in these columns a few weeks ago, bring that country prominently before Canadian breeders as a probable market for our pure-bred cattle and sheep. Then the retaliation against Great Britain on the part of the people of the Argentine in placing an embargo upon live stock shipped from the former country gives this whole question additional importance from the Canadian breeders' point of view. Following on this, as noted elsewhere, comes the decision of the United States Department of Agriculture to allow cattle purchased in Great Britain to be tuberculintested by one of their veterinarians before shipment, thus leaving the way clear for the American breeder to import stock direct through United States channels rather than through Canadian ports as has been the case during the past year or two. This may also have the effect of inducing the breeder in the United States to import English blood direct to replenish his herds rather than to make his purchases in Canada as he has been accustomed to do to a large extent during the past few years.

Thus while conditions in the Argentine are so shaping themselves as to furnish a splendid opportunity for opening up a market for a large portion of our surplus stock in that country, the recent action of the United States Department of Agriculture may serve to give our growing trade with American breeders a slight check, though we sincerely hope not. But whether it does so or not or whether our trade in pure-bred stock with the United States increases or decreases, we believe an effort should be made as soon as possible to introduce our stock to the breeders of the Argentine, the embargo upon their cattle entering G at Britain can only give the export trade of that country a temporary check in any case. As pointed out a couple of weeks ago by Capt. Pearse, efforts have already been made to develop the chilled meat trade with most gratifying results. For that trade the finest types of beef cattle will be required and good breeding animals will continue to be imported in order to keep up the quality of the herds.

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As far as our judgment goes and it is based upon information received from that country from several sources, we do not think the Argentine or that portion of South America will ever become a breeding ground for pure-bred stock, or at least for many years to come. Conditions there generally speaking, are not so favorable for raising and maintaining herds and flocks purely for breeding purposes. Besides, the cattle raisers, who operate extensive ranches, one of 6,000 to 7,000 acres being considered as small, would not take the trouble to breed and select animals for the purposes of a breeding herd. They prefer, as they have done for the past twenty years, to import new blood in order to keep the quality of their cattle up to a high standard. Then it is a question whether cattle, raised, under such conditions that they can graze all the year round, would be as well adapted for breeding purposes as those bred in a colder climate where higher feeding is a necessity.

Looking at this question in several ways it seems clear that an effort, at least should be made to introduce Canadian, pure-bred stock to the breeders of the Argentine. We are no farther distant from that country than the English breeder is, and our stock should be able to stand the long ocean voyage as well as those from the old land. The chief difficulty seems to be the want of direct steamship connection with the Argentine. If this could be had so much the better. But would it not be possible to ship via some United States ports? We understand that there is direct steamship connection between New York and Buenos Ayres, the port of entry to the Argentine. If this is the case it might be possible to have a trial shipment made, if need be under Government auspices, or through the Live Stock Associations. Such an effort would be worth spending a little time and money upon, and might result in opening up a new and high priced market for our surplus stock. Let a trial be made.

Imported United States Cattle

To be Tuberculin-tested in Great Britain

Following the example of the Canadian Government, the United States Department or Agriculture has arranged for a representative in Great Britain to test all cattle purchased there with the tuberculin test before shipment to America. During the past year or two a great many cattle destined for the United States have been sent via Canada. This action of the Department at Washington will tend to divert this trade back again through American ports. Just what effect this action will have upon the trade of Canadian breeders with the United States it is hard to say. It may have a tendency to lessen the number of purchases of good stock made in Canada, as American breeders can import direct from Great Britain under the same conditions as the Canadian breeder. However, the past season's trade has served to introduce Canadian stock in many parts of the Union, and breeders there may continue to return for more.

The Scottish Ram Sales

Every September the Scotch flockmasters are buying and selling rams. These are great days for owners of fleece and flock. They gather from the ends of Great Britain to the various points where the auctions take place Thousands of animals pass under the hammer and are distributed, singly, by twos and larger lots, over the whole country, Scotland taking most, England a fair number, whi's some cross the channel to Ireland. Few, if any, go abroad. The Scottish sheep are distinctly for home purposes; they have never been favorites in foreign lands, and yet no breed of sheep, cattle or swine ever filled the bill so well as those which in long years have becc.ne typical of the Scottish hills and dales. Scotland owns three great and thoroughly distinctive breeds : The Black face, the Cheviot and the Border Leicester.

The Blackface lives on the heathery hills and mountains. The Cheviot crops the grassy slopes of Southern Scotland and Northern England, occasionally being found in the Highlands, but his habitat is toward the south. The Border Letcester is general over all the low-lying parts of Scotland, and his great value lies in his crossing power. No other breed has ever made a serious inroad into Scotland, and, vice versa, they have never made a mark outside of it. They have not colonized like the Downs and the Merinos. They have filled the requirements of their native land, and that is their mission. For adaptability to the soil and climate they are par excellence, more especially the Cheviot.

Shropshire Downs have made some headway and are a factor in Scottish sheep breeding, but they have not dislodged the original breeds, acting more as an adjunct to the Border Leicester and being used extensively to cross on Leicester-Cheviot ewes, for which purpose they are held in high esteem.

Prices this season, while on the average higher than a year ago, are a disappointment for the individual sheep, the "cracks" not bringing more than half of the figures paid a year ago, a Blackfaced ram at \$650 topping the list, with another of the same breed at \$625. In Border Leicesters \$600 took from the Mertoun bunch the plum, whereas last year it cost \$1,325 to touch the top notch. Blackfaces also led in averages, at \$145 each for a consignment of forty head. Mertoun, as usual, tops the Border Leicester average, at \$145. The top price for Cheviots at Hawick was \$305, and the top average was \$80.

Years ago when I was farming in Scotland, Kelso was the centre for the sale of Border Leicesters and Leicester-Cheviots, Hawick for Cheviots, and Edinburgh and Lanark for Blackfaces. Nowadays there are sales all over the country, Perth being a point of great importance, but the romance and glory of the trade hung around Kelso then as it does now. What a stir there was in the old town for several days before—the "herds" bringing in their dar-

lings, every one named and known. Andrew Paterson, anxious-looking and trembling with excitement when No. 1 of the Mertoun lot posed before the auctioneer, was there, and so was Tom of Mellendean, the strange, erratic, but faithful servant of Miss Stark, owner of the famous flock. Not a trick in the trade but what they knew, and that knowledge they did not care to impart either to their fellow servants or masters. It was their stock-in-trade, jealously guarded, a secret mystery that was occasionally hinted at but never fairly divulged. After all there was no harm in it, and the world wagged on when both Andrew and Tom were gathered to their fathers. I could draw Andrew out but Tom never, although his close neighbor for many years. He lived in a "butt and a ben" in the village of Sprouston, hard by the Tweed, and the mellow haugh lands of the farm were well suited to raising fine stock of every kind, but more especially sheep, that need, most of all our domestic animals, a dry bed and soil. Dawn saw Tom at work among the "tups," and dewy eve found him still there. In fact, it was his life work ; when left, he pined away and died, and now lies in the old kirkyard, but a stone's throw from his old home and the paddock where he kept the rams that crowned with glory the name of Stark of Mellendean and made it famous throughout the land .- J. C., in The Live Stock Report.

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Pointers for Institute Lecturers

In the Gazette department this week appears the announcement and list of meetings, with speakers, for the November and December Farmers' Institute meetings. Secretaries, officers and members should read this list carefully and make an effort to largely increase the attendance, and profit from these gatherings. Judicious advertising and keeping the meetings before the public will in no small measure increase the interest and enthusiasm in these gatherings, specially designed for the farmers' benefit.

A striking example of the usefulness and good work of the Institutes in the past is to be found in the desire manifested in many sections for fuller and more detailed information upon the numerous problems affecting the farmer and his calling. In the early days of the Institute the information imparted by lecturers, and rightly so, consisted largely in telling the farmers what remedies to apply and what to do in order to improve their methods farming. This is, perhaps, the dominant feature in the of addresses delivered by the majority of Institute workers to-day, and, while it should in no way be disregarded or discontinued, there are not wanting signs to show that many progressive farmers are now seeking to know the as well as the "what" in doing things. The In-"why, stitute lecturer, therefore, who can tell his audience why as well as what to do a order to follow out certain lines of practice, will find his work better appreciated and arousing more interest among the thinking farmers who listen to him, than it otherwise would.

This view is not put forward in any disparaging sense. With very few exceptions the large staff of speakers employed annually on Farmer's Institute work in this Province have rendered lasting and valuable service to the farmers of this country. That their work in the past has been so effective in training and educating the farmers who listened to them to seek wider and deeper information on the subjects dealt with is a very striking proof of this. To ask for the reason for doing things as well as how to do them indicates a desire for information on the part of our farmers that should be catered to as much as possible by all Iustitute workers. There is more likelihood of a line of practice being adopted if the reasons, why it should be followed, as well as how to carry it out are given. And then there is a practical side to it. Very often a speaker advises a line of practice as one that has worked well in his locality, which when applied in the district where the meeting is being held does not work so well. If when advocating a line of procedure the lecturer could give the conditions and the reasons for adopting it in his district, the hearer would be able to judge as to whether it could be applied successfully on his own farm or in his locality.

We submit the above as something for Farmers' Institute lecturers to consider in preparing their work for the coming meetings. It seems to afford a means whereby considerable advancement may be made in the methods of



Group No. 1.—First and second prize aged Shorthorn cows, and first prize three-year-old cow at Fall Fair, Gore Bay, Ont., 1900. The property of Mr. Edwin Battye.

imparting information of a practical nature at farmers' gatherings.

Live Stock Notes

By Stockman

In the South African war the Boers have far excelled the British in the rapidity of their movements. They managed this by having plenty of native horses that could subsist on the grass of the veldt, supplemented by an occasional feed of Indian corn, or mealies, as it is called in South Africa. Every two Boer troopers had three horses. Some had four, but none less than three. They carried rations, starting on a raid, for eight days. The third horse carried the focd, fodder, kettle and small frying pan, and any extra baggage, as blankets, etc. Thus equipped, they could easily make 30 to 40 miles per day, and the British, with their wheeled transports and their lumbering ox-wagons, could only go about half as far.

The Argentine Republic have excluded British cattle from landing at any of their ports. For years past they have been the very best customers for high-class breeding stock the British breeder had, and this will be a very serious loss if long continued. The many outbreaks of foot and mouth disease in Britain is the cause of the embargo.

Sheep are selling at good prices in Britain. The Sussex Express gives tables of each year since 1875, and 1900 is higher than any year since 1890.

Sheep sales in Ontario have not been specially brisk this fall. The usual stock animals have been sold, and some car load shipments made to the West, but, as is usual in election year, the buyers are holding back till November.

Live weight and beef. It is estimated that well finished, two-year-old cattle will yield 60 to 62 pounds beef per hundred of live weight. A three-year-old steer will beef 58 to 61 pounds. Cattle should be fasted 12 hours in estimating beef weight. If not so fasted, five per cent. should be taken from the gross weight.

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Manitoulin Shorthorns

It may be news to many Ontario breeders to know that Manitoulin Island, away up in the Georgian Bay, has more than a mere local reputation for the quality and quantity of some of its herds of pure-bred stock. We present our readers this week with views of two groups of Shorthorns, the property of Mr. Edwin Battye, Gore Bay, Ont. Mr. Battye is an importer as well as breeder of good cattle. Among his importations the past summer was a shorthorn cow from the herd of the Prince of Wales, Sandringham, England, as noted in our pure bred stock columns a few weeks ago.

The animals in the photos are prize winners at the local show at Gore Bay, held a few weeks ago, and would compare favorably with many animals at some of our large exhibitions. In Group No. 1 the cow to the left is Mina May (12451), by General Booth, Imp., out of Isabella Broughton (15842), a cow of good scale, splendid quality, smooth and thick fleshed. The centre cow is Matchless, of Elmhurst 17A, by General Booth, a very large cow, weighing 1800 lbs. three months ago (one month before calving). The one to the right is Fair Helen, vol. 16, a three-year old, with two bull calves to her credit. She is a Watt bred cow, out of Scottish Girl, and sired by Donald Dr. (22605), out of Matchless of Glenhurst 9A (172649). The first one to the left in Group No. 2 is Gordon Prince. calved July, 1898 (29942), by Bridegroom (22604), and out of Lady Aberdeen (32488). Bridegroom was sired by the Cruickshank bull Sittyton Chief. The centre figure is Gordon Prince's first calf, Lord Roberts (32764). He is a model Shorthorn, deep and massive, and was calved Feb. 18, 1900. The calf to the right is Manitoulin, Duchess of Gloster, by Gordon Prince, out of Duchess of Gloster, 45A, and was calved April 23, 1900. She is a beautiful heifer and well bred. In the back ground of the two groups will be seen Mr. Battye's home and barns, the latter being will filled with hay and grain, as crops have been good on the island.

Dairy Methods in Great Britain

The big festival week of the British Dairy Farmers' Association held early this month at Islington has directed some attention on the part of English Agricultural journals to the dairy business. The season of 1900 has been a fairly favorable one for the British dairy farmer. If not in abundance there has been a sufficiency of grass on all but the most arid and worst pastures. The only severe drouth was in September, which, however, proved neither so lengthy nor so severe as those of 1898 and 1899.

In dealing with the question of prices, the Mark Lane Express says: "In regard to prices for milk, butter and cheese, we have perhaps little on which to congratulate dairy farmers. Still, if market rates have sometimes been higher, they have occasionally plunged lower, under worse circumstances for production than those of this year. At Frome Show and Cheese Fair, on September 26, the general run for well-made Cheddars was from 55s. to 6os. per



Group No. 2.—A group of first-prize-winning Shorthorns, Gore Bay Fair, 1900. Owned by Mr. Edwin Battye. See description above.

cwt. For very prime fully 5s. more could have been obtained, and, of course, there were fancy prices for prize lots. Pessimists will no doubt declare that cheese-making can never pay at such rates, and probably they are right to this extent, that it would be more profitable to send a way the milk by rail for direct sale to town merchants, even at comparatively low rates, than to make it into cheese. But to do this the cheese-maker must get a customer, and the direct milk sale trade seems to be already overdone." The journal continues by advising cheese-makers to so apply themselves in the endeavor to master the technical details of manufacture as to be able to turn out the primest article possible. If by this means it were possible to so improve the quality of the product as to secure this extra 5s, per cwt., the producer would have an additional profit which he could not otherwise get.

Is this not sound advice for Canadian as well as British dairymen? Yesterday's public cable quoted Canadian cheese at 545. 6d., while the quotation above gives the prices for English Cheddar nearly a month ago at 5s. to 10s. per cwt. higher. Canadian makers have here a very wide margin to work upon. Even if an increase in price of 5s. were secured by improvement in quality it would mean a largely increased revenue to the Canadian dairyman, There is one feature of these figures that is specially worth noting by the Canadian producer, and that is the wide range of prices paid for cheese in England as to its quality. Such a variation in prices is never made by buyers in Canada. Take any one of the local cheese markets held in Ontario, and we find that the prices offered for the make of the different factories boarded varies very little, frequently the offerings of one single day going off at the same figure. This means that either the buyer takes the lot at the one figure, trusting to making his profit on the transaction by enhanced values for the best factories when their cheese reach Great Britain, or that there is no material distinction in the quality of the goods offered from the different factories represented on the local market. Which is it? We hardly think the cheese in any one section has reached such a degree of uniformity in quality as to make practically no difference in the price offered.

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Money in Chickens

Some weeks ago Mr. A. G. Gilbert gave some facts in these columns in regard to a company formed in this city to engage in the fattening of poultry and exporting it to Great Britain. At that time he quoted figures to show the prices that were being paid the farmers for live poultry by this firm, and which would certainly bring good returns to the poultry-raiser. Since that time the company, which is known as the Canadian Produce Co., has continued to do a rushing business and is receiving supplies of live chickens from all parts of the province. The price paid last week was $5\frac{1}{2}$ c. per lb. live weight, the company supplying crates for the chickens. The price to be paid is fixed for one week at a time and is governed largely by the outlook in the British market and the season of the year. The chickens received will average a little over 8 lbs. per pair, so that the farmer receives about 45c. per pair. At places not near any of the large centres this is a good figure as during the fall season when chickens are plentiful the price does not average more than 25c. per pair. By buying by the lb. the company secures the largest and best chickens, while at local points the price is generally the same per pair for all sizes and kinds.

Early in the season the company purchased for fattening purposes only and by the use of the cramming machine stuffed the birds for a couple of weeks before killing and packing. This plan is not being followed at the present time. All chickens now arriving are immediately killed, packed one dozen in a box, and placed immediately killed, cold storage for freezing purposes. The chickens arriving are considered by the manager to be of a quality suitable for the English trade, and will be kept here till the demand in Great Britain would warrant their being sent forward at a good profit. Though they may not command the extra price of well-fattened chickens it is believed that, owing to the high prices in England for medium quality, there is money in conducting the business in this way. This quality sells readily there at from 13 to 14c. per pound, and, as the cost of transportation is only about $1\frac{1}{2}c$. per pound, there is a good margin for profit at the prices now being paid the farmer, which are above the ruling values for live chickens at most places this season of the year. If farmers, say about the end of September or a little while before selling, would shut their chickens up for a couple of weeks in a dark place and feed them liberally on wheat gleanings, oatmeal, skim-milk, etc., they could put on a pound or two of flesh on each bird and have them in much better condition for killing for the British trade.

Speaking of turkeys, the manager stated to a FARMING WORLD representative that the company had not yet decided whether to purchase turkeys or not. When their representative arrives from England this week their course in this line will be decided upon. He spoke, however, very favorably as to good prices for turkeys. The United States supply is said to be short, especially in Tennessee, the great turkey-raising State of the Union.

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Milling Qualities of Wheat

In addressing a meeting of farmers in Great Britain recently Mr. J. Hastings Brown, a prominent miller gave some valuable hints as to the milling qualities of wheat. The wheat grown in the United Kingdom has on the whole rather poor qualities for milling purposes, and the best wheat for milling is procured by the English millers from foreign sources. Manitoba is mentioned very favorably in this particular. The bakers demand a strong and glutinous flour, and if the home millers cannot supply this there are hosts of foreign millers who can, and therefore the English miller is forced to secure the best quality of wheat to be had for milling purposes. Really strong wheats are nearly always of a dark greyish brown in color, hard and flinty in appearance, and when broken across the grain do not look very soft and chalky white inside. From pure white wheat of the best varieties we get a beautifully white clear flour, which although weak, is not weaker, and is of better quality generally than can be made from any yellow skinned wheat of the square head type. As white wheat is a more delicate grain and more easily soiled by the weather it would perhaps be better to grow the stronger and hardier varieties.

In dealing with the conditions affecting the quality of English wheat and the causes that have tended to bring about deterioration Mr. Brown says:

"Now, why is it that with an active consumptive demand at your very doors for four times the quantity of wheat you now grow, your wheat is often a drug on the market, and sells for shillngs per quarter under the price paid at the same time for the better classes of foreign wheat? In my opinion the chief reason is, that in face of a growing demand for increased strength and quality in flour, there has been a steady deterioration in the strength and quality of English grown wheat, owing to the introduction and use of heavy cropping but inferior varieties of seed. With the advance in general prosperity, the British people have become more and more fastidious about their bread. They insist upon having a large loaf for their money, and are not satisfied if it is not also of good texture and color.

"Now, this quality of glutinous strength is exactly what your modern English wheat lacks, and this is the reason why millers, taking an average of the whole country, cannot use more than about 25 per cent. of it in their grists. Since seedsmen have introduced and farmers have taken to growing soft and inferior yellow wheats of the square head type, this want of strength and general all-round quality has been greatly accentuated, and millers are thereby limited to using a much smaller proportion of it than they otherwise would do. At certain seasons of the year, when your wheat is offered for sale in larger quantities than millers can use it, its price is naturally depressed, and much below the stronger foreign wheats. At such times Duluth and Manitoba spring wheats are held from 3s. 6d. have to pay this difference for extra strong wheats to blend with weak English, to make up for its deficiencies.

"What is wanted is a variety which will give both weight and quality of grain, aud for the attainment of such I would make the following three suggestions -First, that farmers should do more experimental work, both on their own farms and in association through their agricultural societies and colleges. Second, that they should get their local supply associations to procure for them from distant ocunties a change of seed of the best and strongest kind available. Third, that when ordering seed wheat from their seedsmen they should insist that the strength quality of the grain is quite as important as its bulk producing properties."

Northwest Horses

There have been reports published to the effect that the horses sent to South Africa from the Canadian Northwest with Strathcona's Horse were not to the credit of the parties who selected them. The following extracts from letters received from Lieut. Col. Steele, commanding officer of Strathcona's Horse, by Dr. D. McEachran, Montreal, of date August 6, go to show that horses from the Territories stood the severe test better than any class of horses in the campaign, excepting the native South African pony

"Since the 1st June the regiment has marched something over 700 miles, and the Canadian horses which you purchased have stood it very well. It is the opinion of officers and others who have looked at the horses that they are the best that have been imported into the country, and, outside of the native-bred pony, best fitted for the work.

"I wish to assure you that the horses are the best in the Two squadrons had the 460 spared, and they had army. to do all the hard scouting and advance guard, while C squadron with the Argentines had to be spared for a long time. We have lost very few Canadians, and have changed our other remounts several times."

CORRESPONDENCE

Apples and Apple Pomace for Milch Cows

Editor THE FARMING WORLD :

We have been asked to make some experiments with apples and apple pomace for feeding cows, and I take pleasure in submitting the results for the benefit of your

We selected six cows in the dairy herd in varying stages of lactation for the purpose of an experiment. Three were given pulped apples in addition to their regular ration, and the other three were given apple pomace from a cider-mill in addition to regular feed. Each of the three cows was given about half a bushel of apples per day and the cows receiving the pomace were fed about the same quantity. The apples cost fifteen cents per bag. The pomace cost nothing but the labor of hauling from Guelph. All of the cows ate the apples greedily, but one of the cows selected refused the pomace, and we put another in her place after vainly trying to coerce her.

The experiment continued for sixteen days-October 4th to 19th. The milk was weighed from each milking and samples were taken daily for testing. The monthly fat test for September was taken as the percentage of fat in the milk for the period previous to feeding the apples and pomace, which probably accounts for the lower yield of fat in this period. We have found that our cows usually test lower in a hot, dry month.

YIELD OF MILK AND FAT.

The three cows fed on apples gave 1,174 lbs, of milk, which contained 32.78 lbs. fat during sixteen days previous to the experiment. While fed on apples in addition to meal, silage and pasture these cows gave 1,122 lbs. milk and 33.6 lbs. fat in sixteen days.

The three cows fed on pomace gave 1,003 lbs. milk and 38.58 lbs. fat in sixteen days on ordinary feed. When one-half bushel of pomace was added daily to each cow's ration the yield of milk was 1,063 lbs., containing 39.39 lbs. fat in sixteen days.

During the last three days of the trial the quantity of meal was reduced by about two pounds per cow each day to note whether the apples or the pomace were capable of maintaining the milk flow when the meal was lessened. The three cows on apples and a full meal ration gave 211 lbs. milk in three days, and during the next three days when the meal was reduced they gave but 196 lbs., or 15 lbs. less milk in three days.

The three cows fed pomace and a full meal ration produced 204 lbs, of milk in three days, and 200 lbs. during the next three days on a reduced meal ration. One com gave exactly the same quantity in each trial, while each of the other two gave two pounds less in the three days.

CONCLUSIONS.

1. The cows fed on apples, meal, silage and pasture decreased in their milk flow 52 lbs. in sixteen days. The cows fed on pomace, meal, etc., increased their flow by 60 lbs. in sixteen days.

2. Neither the apples nor the pomace maintained the milk flow when the meal was reduced. Five cents worth of apples (one-half bushel) were not equal to two cents' worth of bran, pease and oats.

3. The flavor of the milk and butter from the pomace especially was not good, hence we should not advise the feeding of apple pomace to cows though it appears to stimulate milk production when fed along with other foods. Whether it is advisable to feed apples or not in small quantities may depend upon circumstances such as the individuality of the cows, combination with other foods, etc. In the case of the three cows in our experiment, the

milk flow was reduced by adding the apples to the ration. I may add that we have cheese and butter made from and rape, with and without the addition of "Virginia Cattle Food" which is said to be a milk purifier. We purpose also to feed some cows on turnip tops with and without the "Cattle Food " to note the effect on flavor. The results of this experiment together with the score of the cheese and butter already made will be reported upon at a later date. O.A.C., Guelph, Oct. 23, 1900. H. H. DEAN.

Manure and how to Apply it

Mr. Wallace Replies to Mr. McNeil

Editor THE FARMING WORLD :

It seems a great pity that your valuable columns should be imposed upon by a discussion of me. What have I done to deserve it ? I have presumed to defend an established principle against what I consider an unwarranted and ill considered attack, and our Walkerville critic lets loose a tirade of abuse and ridicule at me, and ungener-ously insinuates that I am so actuated by sordid motives that my mental vision is distressingly perverted. I shall not presume on your good nature to use space defending myself against this unjust attack, but as the accuracy of my statements are questioned, I simply refer my critic to the one text book I have known him to quote, "Roberts on the Fertility of the Land," which is a standard work recognized in the curriculum of our Guelph Agricultural College.

The figures I have used are substantially correct according to Roberts, and the cut, which I send you herewith of Dr. H. Dubber's experiments shows practically 90 per cent. of the total phosphoric of the grain plant in the ripened grain leaving the balance in the straw. Roberts concurs in the assumption of good authorities that in pro-portion to the digestibility of the ration given and the conditions of maturity and service the animals retain as high as 90 per cent. and as low as 10 per cent. of the elements

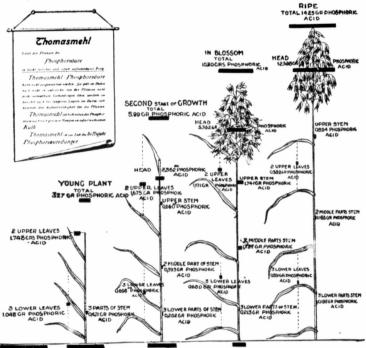
of their food. For instance, a growing animal, an animal in pregnancy, a milking cow and an old animal retain a great deal more phosphate than a full grown fattening steer or a horse in his prime. Roberts finds that 1,000 pounds of matured animal contains fully 100 per cent. more phosphoric acid than 1,000 pounds of grain ; and the pulverized flesh of dead animals contains 1,000 per cent. more phosphoric acid than a similar amount of grain. Animals making no growth or producing nothing certainly do not retain nearly so much of the elements of their daily ration, but such cannot be taken as the average condition of farm We can only deal with general average conditions stock. and taking the losses in the manure heap into consideration the waste may be even greater than I reckon. There is abundant evidence of the advantage of phosphoric acid to clovers, grains, roots and all grasses, as well as in the production of better boned and higher class dairy animals. The lessons taught

were tried in this series of experiments, but no other fertilizers exerted any marked influence on the clover. The phosphate has increased the yield of mutton by 175 per cent."

"I have seen phosphate used for many years on grass lands to the great satisfaction and profit of the users. Grass lands have arisen immensely in value from the user of phosphate alone."—The Border Counties Advertiser, Inne, 1898.

"After four years experiments the superiority of the phosphate is still maintained, and this fact may be fairly considered to justify the conclusion that this manure is one of the most profitable that can be generally used for the improvement of grass land. Sown alone it leaves the largest profit of any of the manures used."—Annual Report of Cornwall County Council, England, 1898.

"On the whole, phosphate has been the most economical and effective manure. It has given excellent results



by Dr. Somerville's experiments are sure'y worthy of earnest thought. If the sheep increased in weight so rapidly on the phosphated pastures what are we to assume?

In discussing the principles involved in practical manuring and the use of phosphates in conjunction with clover, I have not had much to say about cost and profit in THE FARMING WORLD because it seems to entail a comparison of various forms of phosphates; and I feel it might be considered an abuse of privelege as people of Mr. McNeill's poise of mind might take exception to it as too much like talking business. As there are few authenticated experiments of importance in Canada to turn to we must still look elsewhere. Prof. J. Robertson, after examining some of Dr. Somerville's experiments, bears witness that "a three acre plot has been improved to carry twice as many sheep, and yield nearly twice as much mutton per acre as the adjoining three acres untreated."

This was published more fully in THE FARMING WORLD a year ago.

Prof. Somerville's report says: "The white clover was increased from $\frac{1}{2}$ of 1 per cent. to $15\frac{1}{2}$ per cent. in the bulk of the hay, and this special phosphate action was confirmed in the red clover too. Many different manures

four years after its application."—Combined report of Berkshire, Dorset, Hampshire, and Oxfordshire County Councils.

"The best results, with regard to both bulk and quality, were obtained with phosphatic manures, and Thomas phosphate has proved the most suitable form."—Report of five years' results from one application. Department of Agriculture, Washington, D.C., U.S.A.

"In the case of several of the series of experiments carried out under the supervision of this station, it has been conclusively shown that phosphate was the only plant food that was useful, and that all the money paid for the other two (nitrogen and potash) was wasted . . It appears further that neither potash nor nitrogen, added to phosphate, increased the crop over and above the yield with phosphate alone."--Field experiments with Fertilizers' Bulletin 179. Note--Field experiments were made on several hundred larms for a period of three years under the general direction of Prof. Roberts.]

While I am always glad to welcome fair criticism and candid argument on the subject of my letters, I think I can fairly ask your protection against personal attacks in these columns. T. C. WALLACE.

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FOR FARMERS AND STOCKMEN

Studies in Nature

A Monthly Review of Insect and Bird Life on the Farm

Edited by C. W. Nash

There is no little thing in nature ; in a raindrop's compass Lie a planet's elements -S. C. G.

BIRD NOTES.

At last our woods are putting on their glorious autumn coloring; everywhere the prevailing tints are rich crimson and gold, with here and there the dark green of some pine or the dark green of heighten the contrast. Nothing on earth can be more lovely than the Canadian woods at this season; it seems a pity that such loveliness should be so short lived.

The great majority of our feathered summer visitors have passed on to the south. Some few straggling flocks of our native sparrows still remain, industriously gathering the weed seeds from the fence rows and incidentally such insects as they may come across in their foraging. Robins, blackbirds, meadowlarks and hermit thruches are common as yet, but their numlers are dwindling down every day, and the first sharp frost will drive them out of the province.

The migration of the kinglets is now at its height and our woods, orchards and shrubberies are thronged with these beautiful and tiny little creatures ; they are, next to the hum-ming bird, the smallest birds we have and yet they are so extremely hardy that a great many of them stay and spend the winter with us. Their food consists entirely of small insects and insects' eggs and their whole time seems to be occupied in feeding. They are remarkably tame and will allow a person to approach almost within arm's length of them, if he does so gently, and it is well worth while going up close to them and watching their proceedings. Never still for one moment, they turn and twist themselves into every conceivable attitude. It seems to be quite immaterial to them which side or end is uppermost, they can feed in any position.

There are two species of them, both of the same size and much alike in general appearance. The goldencrowned kinglet is the more abundant of the two and can be distinguished from the ruby-crowned kinglet by the golden patch bordered with black, which it has on its head. The rubycrown in its first year has no brilliant color on the head at all, afterwards the crown patch is bright scarlet. The ruby-crown never remains here in the winter and is only known to us as it passes through the province in spring and autumn. It has a clear, loud song, which I have only heard in the spring. The golden-crown has no song but it constantly utters a lisping note, which serves to keep the flock together.

These two species nearly always travel together both in spring and fall, and each flock of them is generally accompanied by one or more of those curious little birds, the tree creepers.

Every morning from daylight until about 10 o'clock the bluebirds may be heard and seen passing over us. Just here, near the lake shore, they fly from a cast to west, probably for the purpose of *invoiding* the wide stretch of water, and crossing by way of the Niagara peninsula. The flocks are flying high and none that I have seen have shown any disposition to alight near here.

Their beautiful and plaintive note recalls to my mind the days when they were among the most familiar birds about the farm. In those days I seldom saw flocks of blue-jirds passing over as they are doing now. They then seemed just to quietly drift across the country, flitting through the orchards from tree to tree or along the fence rows from stake to stake, feeding as they went. Perhaps if encouraged to do so they would again occupy their old breeding grounds and resume their former habits, which would be to the great advantage of the country.

Several of our winter birds have arrived from the north, notably the tree sparrow and the little blue snowbird (*lanco hiemalis*) both of which are in strong force just now. Many will no doubt pass on further south before settling down for the season, but enough will, I hope, remain to help enliven our shrubberies with their cheery voices during the snowy scason.

I have not yet seen a snow bunting, crossbill or redpoll, all of which generally appear before this. The very fine weather we are having has, I suspect, induced them to stay in their summer homes longer than usual. The first frosts will undoubtedly send some of them down. These birds are, however, rather irregular visitors; some years they come in abundance, in others they are scarce. Their movements are governed very much by the food supply. If the seeds upon which they feed are abundant in the north they remain there, if not they come southward in search of them.

The owls are now wandering southward. I have already seen some short-eared owls in the low meadows. I hear the screech owls uttering their whinnying notes every night near my house, where they come to look after the mice that steal the grain from my poultry. The screech owl will stay with us all the winter, but the shorteared owl will leave us if the snow becomes too deep to allow him to catch the field mice upon which he principally feeds. The long-eared owls are no doubt here also, though I have not yet seen one. They do not winter here, and will soon be gone.

The very mild weather that has prevailed has had the effect of keeping back the water-fowl and shore birds, or else they have gone south by some unusual route. At any rate, but very few have so far visited Lake Ontario. Some golden plover, black-breasted plover, and a few Wilson's snipe have passed along, but the flocks of small waders that usually make our lake shore a resting place during their migrations have this season been conspicuous by their absence, and it is the same with the ducks ; they are very scarce, but when the first sharp frost come I suppose we shall have a Horned grebes and redflight. throated loons are common on the lake and in the bays, and the herring and ring-billed gulls are gathering about their favorite wintering places.

INSECT NOTES.

The white cabbage butterfly has been enormously abundant this autumn, and I am afraid the market gardens and turnip fields have suffered from the ravages of their lavæ somewhere.

In the early summer I did not see many butterflies nor did I notice many caterpillars on their usual food plants, but in September the mature insects arpeared in clouds and remained well into this month.

I am inclined to think that the bulk of these batterflies may have been driven here from the south in some gale, for on the 20th of September I visited Lake Ontario and found the shore all along the water's edge thickly strewn with the bodies of dead white butterflies. How far the wind-row extended I don't know, but I followed the water's edge for about two miles, and for that distance and as far as I could see beyond they laid as thick on the sands as they could be in a strip about a foot wide. It strikes me that these were drowned in crossing the lake and those we saw here afterwards were such as had made the passage successfully.

I should like to get some more information from observers in other localities as to the movements of this insect this summer.

One of the commonest, and, at the

same time, most beautiful and interesting of our butterflies is the monarch (Danais archippus).

This is the large, brown butterfly, with black-veined wings, that may be seen everywhere in late summer.

It may almost be ranked among our beneficial insects, for in no stage of its existence does it injure any cultivated plant, and its larvæ (caterpillars) feed altogether on the milkweed plants (Asclepias), rank growing weeds.

The caterpillar which is very conspicuous upon the leaves is marked with alternating bands of black, white and yellow and has two black threadlike horns near the head and two near the tail. The pup or chrysalis is of a beautiful pale green color with gold dots. It may be found sometimes suspended by the tail from the milkweeds, or more often attached to a fence rail or some dry twig in the neighborhood of the plants upon which the caterpillar had fed.

Towards the end of summer these butterflies have the peculiar habit of congregating together into flocks like some of the migratory birds and frequenting the trees near the edge of a piece of bush. From these places they make short flights during the day, but at night return and cluster together to roost as close as they can pack.

It is supposed that this insect migrates and spends the winter in the south, and this appears to be highly probable for I have noticed in the autumn great flights of them working their way westward as if actuated by some common impulse, and this year on the fourth of September an enormous flight took place parallel with the shore of Lake Ontario. All day long a constant stream of butterflies were passing, working their way to the West as if, like some of our birds, they proposed to cross the chain of lakes by way of the Niagara peninsula.

SQUASH BUGS.

Since the beginning of September I have found a number of squash bugs resorting to my outbuildings, evidently for the purpose of hibernating there. It is the habit of these disgusting insects to spend the winter in the adult stage under such shelter as they can find. In the spring these adults search out squash and other plants of the same family, upon which they deposit their eggs to the great disgust of the owner thereof, for this is a difficult insect to get rid of, and I rather fancy that no birds will eat them, for which they are not to be blamed. I think that if any bird did eat one it would give him a bad taste in his mouth for some time afterwards. It is well worth while for market gardeners to keep a look out for the adults at this season; each one killed now means a brood the less next spring.

ANSWERS TO CORRESPONDENTS.

I have received the following letter from Mr. Wm. N. Hutt, which is

well worth the careful consideration of every farmer of the country.

ILLEGAL SHOOTING OF THE MEADOW-

LARK.

There seems to be in some parts of the country great ignorance regarding the game laws and the laws respecting insectivorous birds.

In some sections ill-advised persons are hunting meadowlarks under the impression, real or assumed, that the meadowlark is a game bird and that the open season for them began on September 15. Such is not the case as the meadowlark is not a game bird but an insectivorous bird, which for agricultural reasons is protected throughout the entire year under penalty of fine or imprisonment (See Revised Statutes of Ontario, 1897, chap. 280).

The destruction of the meadowlark is a crime against agriculture and doubly so when the offending parties are farmers and farmers' sons.

The meadowlark is one of the most useful birds on the farm, at present only delaying his southward journey to feed on the myriads of grasshoppers which have not been destroyed by the early frosts.

Meadowlarks come early in the spring and feed mostly on weed seeds until insects appear. Throughout the entire growing season they are energetic crop protectors, being the mortal enemies of the dreaded wireworm and cutworms so injurious to young corn.

Anything but careful protection from the farmer would be the basest ingratitude for the services rendered him by these birds. WM. N. HUTT.

It seems a very strange thing that there are people yet to be found in the farming districts of this province who would shoot a meadowlark, and stranger yet, that there are farmers who would permit it to be done on their land without prosecuting the offender.

The Legislature has given us a law for the express purpose of enabling us to protect the valuable insectivorous birds against those persons who wantonly destroy them, and as it appears that there still are people so foolish as to break this law and continue to destroy the birds their own interest should prompt them to protect, the law should be strictly enforced against them.

No amount of reasoning seems to have any effect upon such people as these, but it may be possible to get at them through their pockets, and convince them (even if they are too stupid to understand that killing these birds is an injury to themselves) that other people have rights which they are bound to respect.

Our crops suffer every year to an enormous extent from the ravages of the wireworm and cutworm, and any bird that helps to reduce the numbers of these pests should be protected by public opinion and the enforcement of the law with the utmost rigor.

The meadowlark is perhaps the most highly specialized of all our birds for the destruction of these insects, and in the early summer lives upon them to a great extent, but unfortunately the birds have been so terribly persecuted in this province that we have not now a sufficient number to keep the grubs in check.

At the International Congress of Agriculture held in Paris last July in connection with the exhibition, strong resolutions were passed asking for more stringent laws for the protection of the birds and in every country where agriculture is intelligently conducted the farmers are doing their utmost to protect and increase their feathered friends.

It seems hard to believe that in this Province of Ontario, where we pride ourselves upon our education and superior intelligence, we should still find people connected with agriculture who would kill a meadow lark. Apart from their usefulness as insect destroyers, their beautiful plumage and sweet, mellow song ought to commend them to every lover of the country.

J.P.T.—The mouse you describe I have not been able to identify quite to my own satisfaction. It appears to be one of the Arvicolæ or short-tailed field mice, a most injurious family of animals. They do not often live in buildings, but confine themselves to the fields and orchards. They have a bad habit of barking young trees in the winter. Can you not send me a specimen?

G.H.M.—The snake you sent is a small specimen of De Kays snake (*Storeia de Kayii*). It is rather local in its distribution and can hardiy be called common anywhere. I have found it frequently near, but never in, marshes. It is quite harmless.

" Mary," said the lady of the house, " you didn't put any salt in this bread."

"But," replied the new girl, "didn't the master say yesterday he wouldn't have nothing but fresh bread on his table, mum?"—*Philadelphia North* American.

"Been gunning? What did you get?"

" A couple of ducks."

"What! There are no wild ducks arcuad this time o' year."

"I know. The ducks weren't wild, but the farmer who owned them was." — Philadelphia Record.

"I think it would be a good plan to send Willie up into the country for a month," suggested Willie's father. "He's never been on a farm and it would be rather a novel experience for him."

"No you don't," interrupted Willie. "I've heard all about the country, and I'm not going anywhere where they have threshing machines. It's bad enough when it's done by hand."— *Chicago Evening Post.*

The Agricultural Gazette

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

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

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

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

Back member receives a free copy of each publication issued by the ensemble to the includes a copy of the Swine Record. A member of the Swine Record. A member of the Swine Breeders' Association is allowed to register pigs at 50°, per head, will encourage the source of the Swine Breeders' Association is allowed to register sheep at 50°, per head, will encourage the source of the Swine Breeders' Association is allowed to register sheep at 50°, per head, will encourage the source of the Swine Breeders' Association is allowed to register sheep at 50°, per head, will encourage the source of the Swine Breeders' Association is allowed to register sheep at 50°, per head, will encourage the source of the Swine and address of each member, and the stock be hest for sain, are published and cars month. Over 5000 copies of this directory are mailed morthly. Copies are sent to each Agricultural College and sach the United States, also to promisent breeders' Association the States and the States, also to grow of an Association will only be allowed to advertise stock carresponding to the Association to advertise cattle be must be a member of the Dominion Cattle Breeders' Association. The new is a tesp he must be a mamber of the Dominion Steep Breeders' Association. Members having stock for sain, in order that they must be included in the Catetta, sheep, and will be publication. The list of cattle, sheep, and will be publication be and the State and stock and the stock as a stock and the stock and the stock and the stock as a stock as a stock as a stock as a stoc

Prize List of Dressed Poultry at Provincial Winter Fair.

CLASS 58 .- Fowls.

Sec CLASS 50Fowls.			
I. Pair Brahmas of 1900, any variety	2nd. \$2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3rd. \$1 1 1 1 1 1 1 1 1 1	4th. H.C. H.C. H.C. H.C. H.C. H.C. H.C. H.
SWEEPSTAKE. 13. Best pair in Class 58			
CLASS 59.—TÜKKEYS. I. Pair Turkeys, any age, males Ist. 2. '' '' temales \$4 3. '' '' of 1900, males 4 4. '' of 1900, females 4	2nd. \$3 3 3 3	3rd. \$1 1 1	4'h. H.C. H.C. H.C. H.C.
SWBEPSTAKE.			
5. Best pair in Class 59 \$5			
CLASS 60.—GEBSE. I. Pair Geese of 1900, white\$4 2. '' '' colored4	2nd. \$3 3	3rd. \$1 1	4th. H.C. H.C.
SWEEPSTAKE.			
3. Best pair in Class 60 \$5.			
CLASS 61.—DUCKS, I. Pair Ducks of 1900, white	2nd. \$3 3	3rd. \$1 1	4th. H.C. H.C.
SWEEPSTAKE.			
3. Best pair in Class 61 \$5.			
CLASS 62COLLECTION OF FOWLS. I. Six Brahmas, Cochins or Langshans of 1900	2nd. \$2 2 2	3rd. \$1 I	4th. H.C. H.C. H.C.
pingtons, of 1900	2 2 2	I I I	H.C. H.C. H.C.
CLASS 63.—COLLECTIONS OF TURKEYS, GEESE AND I. Six Turkeys of 1900	DUCKS. 2nd. \$3 3 3	3rd. \$1 I	4th. H.C. H.C. H,C.
Sec. 1. One dozen Eggs, heaviest and best, white	2nd. \$2 2	3rd. \$1 I	4th. H.C. H.C.

Ontario Provincial Winter Fair.

Rules of the Dressed Poultry Department.

RULES.

1. All poultry shown must have been bred and fed by exhibitor, and shall be labelled with the name of the variety of the breed to which it belongs. Crossbreds shall be labelled with the names of the varieties of the breeds used in the crossmating.

2. Eggs shall be labelled with the name of the variety of the breed by which they were laid, and shall have been laid by fowls owned by the exhibitor.

3. An affidavit may be required from each exhibitor in the Dressed Poultry Department stating that each exhibit has been bred and fed by the exhibitor, and that all rules have been complied with.

The following entrance fees will 4. be charged and must accompany each application for entry :- For each entry 25 cents. An entry fee will be charged for each special and sweepstake.

5. All exhibits must be received not later than 1 p.m., December 11.

6. No exhibit shall be removed until the close of the exhibition.

7. The Poultry Committee reserves the right to reject any entry.

8. Exhibits must be sent to the Show room addressed to Superintendent of the Show, in whose care they will remain during the exhibition. Owner's name and address must be on each package for the return journey.

9. Poultry must be exhibited undrawn, and feathers shall not be plucked from the head, nor from the upper portion of the neck.

10. Prizes for dressed poultry will be awarded on best, and best dressed.

11. Entries must be received on or before December 3; no entries will be accepted after that date.

COMPLTITION FOR KILLING AND DRESS-ING CHICKENS FOR THE BRITISH MARKET.

Open to farmers' wives, sons and daughters, only.

1. Each application for entry must be received on or before December 3, and must be accompanied by an entry fee of 25 cents.

2. The killing and dressing must be done along the lines approved by Prof. Robertson in the pamphlet on "Chicken Fattening," which can be procured on application.

3. Each competitor will be supplied with four chickens.

4. Speed and efficiency will be considered in awarding prizes.

5. Moulding Boards will be provided, and the birds must be prepared for packing in crates.

Prizes-Ist, \$5; 2nd, \$3, 3rd, \$2.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labora and the employees. Any person wish-ing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is rear to A. D. P. will his or her tance and full particular Associations. In the case of persons wishing to em-ploy help, the following should be given : particulars as to the kind of work to be done, probable length of engagement, the following should be given : ex-perience and references, age, particular department of harm work in which a position is desired, wages These names when here on the particular of harm work to nife. Upon a request being received they articulars only will be published, the names when the data suitable of year of models, as side to the will be made to give all possible assist more, to the on that suitable workers, male or female, or ange in far. Or you is in intend to take ad-vantage of this opportunity. The Farm Help Exchange has been started with be object of bringing together employers of farm and

Help Wanted.

Married man, without children, wanted on a farm, on a yearly engagement. Would also employ wife. No. 605. 3

Steady, reliable man wanted on a farm where dairying is the principal occupation. 30 to 35 cows kept, and cream shipped to the city. Comfort able house, firewood, milk, and garden plot provided. Wages, \$200 to \$250 per annum. Farm is 21/2 miles from Cornwall. No. 604. b

Situations Wanted.

Man who was raised on a farm, and followed farming all his life, wants a place. No. 450. b

Domestic Situation Wanted.

Experienced woman, 38 years of age, and fond of children, wants a housekeeper's place on a farm. Wages asked, \$10 a month. Good references. No. 451.

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

Farmers' Institutes

Parmers institutes. Under this head the Superintendent of Farmers' Institutes work. This will include instruction to Section work. This will include instruction to boot institutes and Institutes, general notionation about institutes and Institutes of the section of the delegates, etc. He will also from time to pestions to some of the published results of experiments. In this way he hopes to give Institute members some value all agricultural information which they might not obber original publications. If any member at any time desires further information along any of the lines discussed, by applying to us be will be part in direct communication with n the work

G. C. CREELMAN, Superintendent Farmers' Institutes.

Farmers' Institutes of Ontario.

REPORT OF THE SUPERINTENDENT.

In presenting this my first annual report since my appointment as superintendent, I do so with the greatest pleasure, inasmuch as I am able to record a most successful year and a very satisfactory increase in member-

Regular Meetings to be held in November and December, 1900.

DIVISION 7A.

A MCNEILL, WALKERVILLE .- "Spraying for Insect and Fungus Diseases"; "Apple Culture"; "Every Farmer His Own Mason, or Concrete in Farm Structures"; "Small Fruit Culture"; "The Farm Water Supply", (Illustrated); "Stock feeding on Small Farms"; "Clover and Corn"; "The Bacon Hog," Evening subjects: "The Education of the Farmer"; "The Social Side of Farm Life": "Some Insects, Friends and Foes"; "Flowers and Emit for Country Longer", "Some Saret Dealtons"; "Dealtons"; "Dealtons"; and Fruit for Country Homes"; "Some Social Problems"; "Possibilities of Poultry."

MISS B. MADDOCK, GUELPH.-" Scientific Dairying"; "Bacteria as They Affect the Home, the Soil and the Dairy "; "Bread Making.' Evening sub-jects : "Domestic Science"; "Women's Institutes, Their Aims and Objects"; A Few Points in Dairy Work."

г.	MiltonNov.	22
2.	Georgetown	23
3.	Camphellville	24
	Inglewood, Town Hall Peel "	26
	Brampton, Concert Hall Peel "	27
6.	Woodbridge, Orange HallW. York	28
	Weston, Eagle Hall W. York "	20
	Wexford, Methodist Hall E. York "	30
	Agincourt, Temperance HallE. YorkDec.	I
	Bowmanville, Council Chamber W. Durham, afternoon "	3
	Courtice, Son's Hall W. Durham, evening "	3
	Orono, Town Hall W. Durham, afternoon "	4
13.	Newcastle, Town Hall W. Durham, evening "	4
14.	Millbrook, Town Hall E. Durham "	5
15.	Bethany, Town Hall E. Durham "	6
16.	Blackstock, Town Hall W. Durham "	7

DIVISION 7B.

JOHN MCMILLAN, M. P., SEAFORTH.—" Benefits of Farmers' Institutes "; "Draining Land"; "Care and Application of Manure"; "Cultivation of the Soil"; "Rotation of Crops"; "Growing Corn"; "Breeding and Feeding Cattle"; "Silos—Are They Beneficial?"; "Buying and Care of Implements"; "Hog Feeding." Evening subjects: "The Ontario Agricultural College"; "Our Boys and Farm Life." "Our Boys and Farm Life.

MISS LAURA ROSE, LADY INSTRUCTOR IN DAIRYING, O. A. C., GUELPH .--"The Making of Bread and Butter"; "The Properties and Care of Milk"; "Difficulties in the Dairy and How to Overcome Them"; "One Eye in the Field, the Other in the Town"; "Dress, its Health, Influence and Beauty"; "Differences of Level Make Niagara."

Ι.	Brougham, Town Hall	23
2.	Columbus, Town Hall S Ontario	24
3.	Greenbank, Town HallS. Ontario	26
4.	Uxbridge, Town Hall N. Ontario "	27
5.	Beaverton, Alexandria Hall N. Ontario "	28
6.	Woodville, Township Hall W. Victoria	20
7.	Lindsay, Town Hall W. Victoria	30
8.	Fenelon Falls, Dickson's Hall E. Victoria Dec.	1
9.	Bobcaygeon, Town Hall E Victoria	3
IO.	Peterboro', County Council Ch'br W. Peterboro', afternoon "	4
ΙΙ.	North Monaghan, Town Hall W. Peterboro', evening "	4
12.	Lakefield, Town Hall W. Peterboro' "	5
13	Keene, Town Hall E. Peterboro' "	6
14.	Norwood, Town Hall E Peterboro' "	7
15.	Stirling, Music Hall N. Hastings "	8
16.	Madoc, Masonic Hall N. Hastings "	10
	8	

DIVISION 8.

HENRY GLENDINNING, MANILLA .- " The Growing of Red and Alsike Clover Seed '; "Weeds on the Farm'; "Grasses for Pasture"; "Cultivation of Corn for the Silo"; "Underdraining"; "Feeds and Feeding"; "The Hog and Export Bacon Trade"; "Poultry for Export Trade." Evening subjects ; "The Spraying of Fruit Trees"; "The Farmer's Fruit and Vegetable Garden.'

G. C. CASTON, CRAIGHURST .- " Orchard Fruits and How to Grow Them, including Planting, Pruning, Spraying, Cultivating, Fertilizing, Grafting, Budding, etc."; " Cold Storage and the Transportation and Marketing of our Per-ishable Products "; " Cultivation of the Soil and Rotation of Crops "; " Fodder

ship, in interest shown at the various meetings, and in the excellent results obtained by those who have put into practice the information gleaned at the Institutes on the various branches of agriculture.

HISTORY OF THE FARMERS' INSTITUTE SYSTEM OF ONTARIO.

Farmers' Institutes, as known by that name, first came into being in Ontario during the month of January, 1886, but similar work on a smaller scale had been attempted in scattered localities for some years previous, and even as far back as 1792 we find an organized agricultural society doing excellent work in what was then known as Upper Canada. The history of the germ of the Institute movement in Ontario in particular, and in Canada in general, has been so well collated by Mr. C. C. James, Deputy Minister of Agriculture for Ontario, that I gladly quote it here in full : " January, 1885, was the time of the revival of Farmers Institute work in Ontario. It was the date of the beginning of the work under the name of Farmers' Institutes, and the main inspiration for the revival of the work at that time was the success attending the Farmers' Insti-tute work in the United States. This, however, was not the first time that instruction of farmers had been at-tempted. The original agricultural societies of this province, as well as some of the other provinces, had made instruction through papers and discussions an important feature of their work. Of late years agricultural societies have confined themselves to the holding of fairs, and I presume that is one reason why Farmers' Institute work has been so successful. In the earlier days our agricultural societies were accustomed to offer prizes for essays on various subjects, such as the growing of wheat, the growth and manufacture of hemp and flax, etc. These papers were read at the annual meeting and discussed.

"The first agricultural society in Upper Canada was organized in 1792 or 1793, and we have reason to believe that the instruction of the members was of greater moment than the holding of fairs. This society formed an extensive agricultural library, which was carried on for the benefit of its members for a number of years, until it was finally incorporated with the public library of the old town of Niagara. In 1830 agricultural societies were especially encouraged by an act passed in that year, and the first provincial fair was held in 1846. From that time forward these societies were under the control of a Board of Agriculture, which was composed of a large number of representative farmers of the province. Prof. Geo. Buckland was for many years secretary. He conducted a course in agriculture in connection with Toronto University, and had a small experimental farm within the present limits of the city of

Crops and Ensilage"; "The Export Bacon Trade"; "Poultry on the Farm." Evening subjects: "Horticulture on the Farm"; "The Land We Live in."

Ι.	Cold Springs, Township HallW. NorthumberlandNov.	26
2.	Grafton W. Northumberland "	27
3.	Warkworth, Town HallE. Northumberland	28
4.	Brighton, Opera House E. Northumberland "	29
5.	Frankford, Sweetman's HallW. Hastings	30
6.	Wallbridge, Town Hall	I
7.	Demorestville, Town Hall Prince Edward "	3
8.	Ameliasburg, Centre School House. Prince Edward "	4
9.	Canifton, Town Hall E. Hastings "	5
10.	Newburgh, Finkle's Hall Addington "	6
11.	Centreville, Town Hall	7
12.	Tweed, Town Hall E. Hastings "	8

DIVISION 9A.

MAJOR JAMES SHEPPARD, QUEENSTON.—"The Packing and Sale of Apples"; "Planting and Care of Orchards"; "Propagating Fruits, Grafting, Budding, Etc."; "Forty Years' Experience in Growing Corn"; "Tomatoes for Home and Market"; "Ensilage and the Round Silo"; "The Export Bacon Trade." Evening subjects : "Four Reasons why We Till the Soil"; "Three Historical Days on the Niagara River"; "Birds in Relation to the Fruit Grower.'

MISS A. HOLLINGWORTH, BEATRICE -" The Weed Question, with mounted specimens ; "Butter Making"; "The Importance of Good Housekeeping"; "The Use of Native Trees and Plants for the Farmer's Home"; " Our Friends, the Flowers,"

Ι.	Selby, Town HallNov	. 26
2.	Napanee, Town Hall Lennox ""	27
3.	Emerald, Cheese Factory Amherst Island "	28
	Stella, Town Hall	29
5.	Westbrook, Westbrook Hall Frontenac	30
6.	Sydenham, Town Hall Frontenac Dec	. I
7.	Newboro', Town Hall S. Leeds "	3
8.	Delta, Town Hall S. Leeds	4
9.	Athens, High School Hall Brockville (afternoon) "	5
10.	McIntosh's Mills, Columbus Hall Brockville (evening) "	5
II.	Lyn, School House Brockville "	6
12.	Algonquin	7
	Spencerville, Town Hall	8

DIVISION 9B.

D C. ANDERSON, RUGBY .- "Green Crops as Fertilizers"; "Care of D C. ANDERSON, RUGBY.—"Green Crops as Fertilizers"; "Care or Manure, and How to Apply It"; "Rotation of Crops"; "Breeding and Feeding Hogs for Market"; "Weeds, and How to Destroy Them;" "Judi-cious, Careful Selection as a Basis of Success in Plant and Animal Life"; "Fields, Fences and Buildings." Evening subjects: "Poultry on the Farm"; "How to Pay Off a Mortgage"; "Advantages of Farm Life"; "Poultry Its Construction of the Construction of C Care and Management as a Source of Income to Farmers' Wives and Daughters.

A. P. PURVIS, MAXVILLE -Subjects will be published in GAZETTE next week.

Ι.	Moose Creek, Gagnon's Hall Stormont Nov. :	26
2.	Berwick, Township Hall Stormont "	27
3.	Cornwall Centre, Township Hall Cornwall	28
4.	St. Andrew's, Old Church Cornwall	29
5.	Martintown, Mrs. McIntosh's Hall. Glengarry "	30
ŏ.	Maxville, Public Hall Glengarry Dec.	I
	Vankleek Hill, Town Hall Prescott Dec. 3 and	
8.	Metcalf, Town Hall	5
Q.	Russell, Town Hall Russell "	6
10.	Winchester, Music Hall	7
II.	Winchester, Music Hall Dundas " Mountain, Methodist Hall Dundas "	8

DIVISION 10.

ANDREW ELLIOTT, GALT .--- "Essentials to Success in Dairying " " The ANDREW BLLIOT, OAL — Estendia to Success in Dairying Dairy Cow from Calf to Maturity "; "Corn and the Silo in Connection with Dairying "; "Soiling Dairy Stock "; "Clover and Clover Hay "; "Keep More Sheep "; "Lamb Feeding "; "The Bacon Hog, and How to Feed Him"; "Root Growing Necessary to Stock Raising"; "How to Retain Moisture in Evening subjects : "The Evolution of Agriculture"; "The Counthe Soil." try Home."

C. W. NASH, TORONTO .- " Domestic Animals and Poultry "; " Nature

Toronto. He was accustomed to make a tour of the agricultural societies, and address them upon various agricultural topics. In many cases these agricultural societies devoted their energies and funds to the introduction of pure-bred stock and seed grain, and in a few sections the desire for instruction not being fully met by the agricultural societies, others known as farmers' clubs were organized. The records of these were very meagre. However, I have before me reference to one which may be of interest. It is contained in an article written by Mr. Walter Riddell, sr., of Cobourg, and refers to the County of Northumberland, about 70 miles east of Toronto. He says : 'There had been an agricultural society in this county before we knew it. The first society was formed in 1824. It held shows and plowing matches, and gave prizes for best managed farms, and for essays on wheat culture and other varying subjects. The farmers' club was begun in 1846, and though often dormant, it took occasionally lively starts, and held sometimes ten or twelve meetings in a year. The subject for discussion at the next meeting was selected, and someone appointed to undertake it, which he might do either verbally or by written paper. The subject was then discussed by the members. This has been superseded by Farmers' Institutes.

" At the time of the organization of the Farmers' Institutes there were active farmers' clubs in Puslinch Township, Wellington County, and at St. George in Brant County, and the members of these clubs at once threw their energies into the Farmers' Institutes. There were probably many others, but their record has disappeared. My conclusion, therefore, is that while the year 1885 may be given as the year of revival of the Farmers' Institute work, and placing it upon an organized and permanent footing, the germs of the work must be looked for in the farmers' clubs and the agricultural societies, the earliest of which dates back for over 100 years."

"The first agricultural society organized at Quebec, 1789, published a small volume containing special information and suggesting various lines of experiments. The report was very much of the nature of the first report of the New York society, 1792."

A COMPARATIVE STATEMENT.

A comparison between the amounts appropriated by the Legislature in Ontario and certain States of the Union and of the results obtained therefrom is strikingly in favor of Ontario. Taking the year 1899, the last year for which figures are available, we find that the Government appropriation for Farmers' Institute work in Ontario is only \$9,900. This includes the salary of the superintendent and expenses of his office, with the exception of the cost of printing his annual About the Farm"; "Common Sense Spraying"; "What Our Hawks and Owls Do"; "The Value of Our Small Birds"; "The Best Fish for Ponds."

1.	Merrickville, Town HallN. Leeds and N. Grenville Nov.	26
2.		27
3.	Stittsville, Green's Hall Carleton ti	28
4.	Carp, Town Hall "	29
5.	Renfrew, Temperance Hall	30
6.	New Glasgow, Temperance HallS. RenfrewDec.	I
7.	Cobden, Town Hall N. Renfrew "	3
	Pembroke, Town Hall	
9.	Carleton Place, Town Hall N. Lanark "	5
	Almonte, Town Hall N. Lanark "	
	Smith's Falls, Town HallS. Lanark	
12.	Perth, Town Hall S. Lanark "	8

report. During the year ending June 30, 1899, 677 Institute meetings were held, at which there was a total attendance (actual not estimated) of 119,402. All parts of the province are reached as meetings are arranged for in every district at central points.

In New York State, which, as regards climate and latitude, resembles Ontario, the annual appropriation is \$20,000. About 300 meetings are held, while the attendance does not exceed 75,000 annually. In Ohio \$8,173.36 is available for expenses and a similar sum for payment of lecturers, or \$16,346.72 in all. 274 meetings were held in 1899 1900 with a total attendance of 98,210. The State of Minnesota appropriates \$13,000 each year with only 59 meetings and a total attendance of 22,600. In Pennsylvania the figures are : Appropriation, \$12,500; meetings, 308; attendance, 50,000. In Wisconsin, appropriation, \$12,000; meetings, 127; attendance, 55,000. The list could be further extended, but enough has been said to show that with a smaller expenditure than in the principal States of the Union, Ontario is securing much better results, both as regards the work done and the number of farmers reached by means of lectures, reports and other suitable literature.

ATTENDANCE, MEMBERSHIP, ETC., 1899-1900.

During the year ending June 30, 1900, the Institutes show a decided increase in attendance, membership and the number of meetings held. In the province a membership of 18,058 was enrolled, while 138,982 persons attended the 715 meetings.

The Institutes holding the largest number of meetings during the year ending June 30, 1900, are :

Hastings, North	22
Ualdimond	
Haldimand	15
Waterloo, South	15
York, East	15
Simcoe, East	14
Huron, West	12
Middlesex, North	12
Peel	12
Durham, West	II
Parry Sound, West	11
Grey, North	IO
Lennox	10
Ontario, North	10
Ontario, South	10
Prince Edward	10

The Institutes which were the most largely attended were :

largery attended were .	
No. of	Total
Weterlee S	Attendance.
Waterloo, S15	3,875
Bruce, S 7 Middlesex, N 12	3,730
	3,635
Lanark, N 9	3,630
Halton 7 Huron, W 12	3,545
Northumberland, E. 6	3,090
	3,005
Norfolk, N 8	2,678
Haldimand 15	2,623
Perth, N 8	2,470
Huron, S 6	2,270
Lanark, S 6	2,250
Hastings, N 22	2,198
Wentworth, S 9	2,184
Leeds, S 7	2,175
Peel	2,120
Glengarry	2.285
Perth, S 8	2,025
The Institutes having	
membership to July, 1900,	are :
Peel	545
Hastings, North	
Halton	
Waterloo, South	
Lanark, North	
Middlesex, North	340
Haldimand	338
Huron, West.	323
Norfolk, North	322
Lambton, West	315
Wentworth, South	306
The Institutes having t	
membership are :	ile smanest
Port Carling and Bala.	
Muskoka Centre	
Amherst Island	
Addington	
Cornwall	
Algoma, Centre	
Essex, North	80

Special Notice to Directors and Officers of Farmers Institutes.

Another Institute season is about to commence and I desire to call your attention to a few matters connected with the work.

In the first place the Institutes are becoming more popular each year, as indicated by the increased attendance. Those attending are getting more out of the meetings each year, as indicated by the intelligent questions asked the delegates and the demand by the members for the reports and bulletins published by the Department.

So far, then, everything is running smoothly. Where must we look for expansion in the future? We must by persistent effort endeavor to get out to our meetings those farmers who need the instruction most. I realize that this class, the ones, who from ignorance of the best farm methods, are poor farmers indeed, are the very ones who most need instruction and are also the hardest to reach. Personal canvas is no doubt the best way to secure their attendance.

A WORD TO DIRECTORS.

Are you helping your secretary? Have you spoken to all of your neighbors about attending the nearest Institute meeting? Have you secured a large membership in your township and sent the names and fees in to your secretary? Have you thought over what you are going to say at the next meeting you attend? Have you taken any notes on your work since the last meeting that would interest your neighbors and serve to bring out a discussion at the coming meetings?

If you have not done these things you have fallen short of the standard set for a director of a Farmers' Institute.

TO THE PRESIDENT.

Are you thinking of any plans by which you can make your meetings more interesting and instructive? Have you yet arranged in your mind or on paper a few suitable remarks for opening each meeting? Have you consulted with your secretary as to any new features you propose to introduce or have you picked out and conferred with him about certain men who might read papers or deliver addresses at the meetings?

If you fail to think of these things you are not a model president and your Institute will not make the progress that it should during your term of office.

TO THE SECRETARY.

To you must fall the heavy share of the work. You are probably the most concerned as to the success of the year's work. What have you done by way of preparation for this winter's meetings? Have you spoken to any of the men or women in your district about helping at the meetings? Have you thought about any new features that might be introduced to help your attendance and increase your membership? Have you written to each of your directors asking their co-operation and advice? Have you consulted with your president as to a plan of work for your series of meeting?

"Let me see," mused the sporting editor, "what is an incubator." "An incubator," replied the agricultural editor, "is an egg plant."

Guelph College Crowded with Ontario Farmers' Sons

The Outario Agricultural College opened on the 14th of September this year, about two weeks earlier than in former years. Some one hundred and eighty applications were received from old and new students, but several of those who were accepted found it impossible to return-some on account of sickness and others because of the difficulty in getting men to take their places at home-while a number would not come because they could not be accommodated with room in the college dormitories. The result is that only 160 of the 180 are in attendance at present, but several more are expected to enter within the next few days. As the college residence will accommodate only 127 students, 33 of those in attendance are required to secure lodging in private residences near the college and are given board in the college dining hall.

The regular college course has recently been lengthened by one year, and the session of 1901-1902 will see the first lot of tourth-year men in attendance. This change will increase the number in attendance next year by about 15; and even though the number of new applicants does not increase, there should be accommodation provided in residence for at least 55 or 60 more students. There have been more applications received regarding the course during the past few months than during the corresponding months of any other year; and the prospects are that the number who will seek admission in the fall of 1901 will be much greater than at any previous time.

A very pleasing feature in connection with the college is that the students who seek admission are, on the whole, better educated than formerly. As an evidence of this fact, it might be stated that the percentage of this year's freshmen who have passed ex-aming on equal to Junior Matriculation is twice that of last year. During all the years previous to the fall of 1899 only about six or eight freshmen were allowed to proceed at once with the work of the second year, while this year we have 13 freshmen who are taking second-year work. The time table of lectures has been so arranged that these 13 second-year students may take some of the first year subjects in the place of the second year subjects in which they are already quite proficient. Supplemental examinations will be given them on a number of first year subjects next summer, and in this way they will be prepared to proceed at once with the work of the third year in the fall of 1801. The great increase in the number of welleducated young men who are now taking the course speaks well for the work which is being done at the college. Another evidence of the popu-larity of the college is shown by the following :

At the annual meeting of the Scottish Chamber of Agriculture, held in Edinburgh, the Rev. Dr. Gillespie referred to the Ontario Agricultural College as the "beau ideal of an agricultural college," and Mr. J. A. Mc-Donald, in writing about the matter in the *Breeders' Gazette*, states that "it must indeed be gratifying to Ontario to have her agricultural college so highly thought off by such eminent agriculturists and held up as a model for old Scotland to copy. It will have been noticed by the annually increasing attendance that this college is steadily advancing in popularity and usefulness at home."

We do not wish it understood from the above that the work of the first two years is more difficult that it was before the recent change was made; in fact, the first two years of the course consist more of the practical and not so much of the scientific, while the third and fourth years are devoted to special scientific work bearing on agriculture in its broadest sense. Farmers' sons who have a good common school education and are prepared to put forth their best efforts while at the college usually find no difficulty in securing their diplomas at the end of the second year. It is well, however, for them to have had one or two years' training at a high school, especially if they intend to take third and fourth year work.

Guelph, Ont., Oct. 13, 1900.

Increasing Profits.

A writer in the Kansas Farmer, writing on "How to Increase Profits in Dairying," sums up by giving nine ways in which it may be accomplished, as follows:

1. By being regular.

2. By kind and gentle treatment.

By more judicious feeding.
 By preparing more comfortable

housing.

5. By supplying plenty of pure water as near as possible of right temperature.

6. By growing on the farm the most milk-producing foods.

7. By having cows that will drop good calves.

8. By weeding out the poor cows.

9. By keeping the best neifer calves and raising them on dairy feeds.

"From Kentucky, eh?" said the hotel clerk, smilingly.

hotel clerk, smilingly. "Yes, sah," replied the man who had just registered, "but—" and there was a dangerous gleam in his eye— "I'm not a member, sah, of the Legislatuah, sah."—Smart Set.

"I hear your husband is very sick, Aunt Dinah."

"Yes'm."

"Nothing serious, I hope. His condition is not critical?"

"Critical! I should say he wuz! He ain't satisfied with nuffin'."—The Christian Register.

The Farm Home

Little Boy Blue.

The little toy dog is covered with dust, But sturdy and staunch he stands, And the little toy soldier is red with rust, And his musket molds in his hands. Time was when the little toy dog was new And the soldier was seeing fair

And the soldier was passing fair, And there was a time when our little boy

blue Kissed them and put them there.

"Now, don't you go till I come," he said, "Now, don't you go till I come," he said, "And don't you make any noise." So, toddling off to his trundle bed, He dreamt of the pretty toys. And as he was dreaming an angel song Awakened our little boy blue. Oh, the years are many, the years are long, Ear the little toy fields are true.

But the little toy friends are true. Ay, faithful to little boy blue they stand,

Each in the same old place, Awaiting the touch of a little hand, The smile of a little face.

And they wonder as waiting the long years

through, In the dust of that little chair,

What has become of our little boy blue, Since he kissed them and put them there.

-Eugene Field.

Skim-milk-Its Value as a Food.

By Laura Rose, O.C.A.

The value of skim-milk as a food is not generally appreciated, nor is it used as extensively as it should be

When I visit farm homes, and see the mothers pour from the teapot tea which my own stomach rebels at receiving and give it to the children, is it any wonder these same children grow up to be dyspeptics? If milk were not to be had, then there might be an excuse. The busy housewife has so many things to see to that she adopts that which is easiest and quickest. It is often a little trouble to have always on the dining table a jug of milk, and so water, tea or coffee take the place of a drink which is high in food value.

It must be remembered when the cream has been removed from milk it has only lost one of its constituents, namely the fat. It still practically contains all the nutritious casein and other nitrogenous materials, besides the milk sugar and mineral matter. A quart of skim-milk is worth a tenquart pail of ordinary soup. Two quarts of skim-milk have a greater food value than one quart of oysters, both as regards the nourishing of the body and the furnishing of fuel to keep up the animal heat. Five pounds (two quarts) of skim-milk contain as much protein as one pound of steak from the round.

Good home-made bread and butter, eaten with skim-milk, make a perfect ration on which any child should flourish, especially when supplemented with well-cooked cereals and ripe fruit.

Now that separators are so generally used it is an easy matter to save a large jug of skim-milk night and morning. Many children cannot take the fresh, warm milk, although it is then at its best, and is more easily digested ; still, if they do not care for it warm, encourage them to drink it by having it quite cold. In the winter-time to heat milk without boiling it makes a very comforting drink.

Chocolate or cocoa made entirely with hot skim milk is just splendid, and the majority of children, and grown people, too, are fond of it. Persons who cannot take the usual breakfast coffee will find a cup of hot milk, with a tablespoon or two of strong, well-made coffee and a little sugar in it, a most nourishing and pleasant substitute. This is what the French call "coffee au lait," and the Americans "Boston coffee.

Nearly all children like bread and milk or crackers and milk, either hot or cold. Buttered toast, well covered with hot skim-milk and a dash of pepper and salt put over it makes a good breakfast or supper dish.

In the fall and winter it is especially nice to have some hot dish for the evening meal. If the housewife has plenty of skim-milk at her disposal it is an easy matter to furnish the hungry school children and tired men with something tasty and appetizing. Soups made from potatoes, celery, onions, tomatoes, etc., and eaten with bread and butter for tea are relished by all.

For the onion soup, slice and stew well four or five large onions, add a quart or more of skim milk, a small piece of butter, pepper and salt, and thicken with a little flour. This is excellent when colds are prevalent.

For celery soup, cut the coarse stalks of celery (both white and green) into half-inch lengths, stew well and treat as above.

Potato soup can be made in a similar manner by using the left-over mashed potatoes.

In making tomato soup, before adding the milk, put into the stewed tomatoes half a teaspoonful of baking soda. This counteracts the acid and so prevents the milk from curdling.

Custards, puddings, pies, etc., made with milk are the very best kinds to eat.

Bread mixed with skim-milk instead of water is more nutritious, but the milk must be scalded, otherwise the dough may sour.

Much more might be said in commendation of skim-milk, but I will close with Whittier's tribute in "The Barefoot Boy "-

" Oh, for festal dainties spread,

Like my bowl of milk and bread !"

Hints by May Manton.

Ladies' Corset Cover, No. 3609. Ladies' Four-Gored Petticoat, No. 3610.

No gown can fit satisfactorily unless the garments worn beneath are made and fitted with equal care. The excellent corset cover and petticoat illus trated have the merit of including no unnecessary fulness and being designed with direct reference to present styles.

The corset cover is fitted with shoulder and under-arm seams. The back is smooth across the shoulders, drawn in at the waist line, the front is gathered slightly at the upper edge and drawn in at the waist. As shown it is made of nainsook with two rows of needlework insertion and a finish of beading through which narrow black velvet ribbon is run, but cambric or fine long cloth can be substituted if desired, and the trimming can be made more or less elaborate to suit the taste. The essential features of the design are the perfect simplicity and fit, and the tidiness accomplished by the portion that extends below the waist line,



This cut illustrates two (2) patterns. 10 cents to be charged for each.

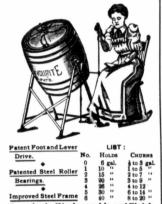
and which is not full enough to mean noticeable increase in size.

The petticoat is cut with front and side gores and a straight back, a combination that means a perfect hanging skirt after laundering as well as before. It is snugly fitted at the upper portion, strengthened by a pointed yoke at the front and arranged to be drawn up at the back to any size desired. At the edge of the skirt proper is attached a

FOR FARMERS AND STOCKMEN

narrow, straight frill, which gives additional freedom to the feet. Over the skirt, slightly below the knees, falls a double flounce, which, as illustrated, is half of the material, half of embroidered edging, the seam that joins the two being concealed by a band of insertion. As the model shows, the flounce falls over the narrow frill, but not to its extreme edge, a practical point that is well to bear in mind. Every woman has suffered from edges that fray while the remainder of the garment is in good condition. This simple device means that wear will fall upon the exposed edge and that the narrow, plain frill will be all that is necessary to renew. Nainsook, cambric, long cloth and fine muslin are all suitable for white cotton skirts, taffeta, plain or striped, when it is desired in

Maxwell's "Favorite" Churn.



Superior in Workmanship and Finish

St. Mary's, Ontario, Canada.



silk, as well as moreen, brilliantine and sateen. In the latter case the lower flource should be plisse't o give the best effect, and, if possible, finished with a narrow pinked ruche. The style shown, with the embroidered flounce, is eminently smart for cotton skirts, but a plain flounce can be substituted if preferred, but when long cloth or muslin are used for the skirt proper cambric should be used for the flounce.

To cut this corset cover for a lady of medium size 1 yard of material 36 inches wide will be required; to cut the skitt 6 yards, 36 inches wide, or $9\frac{1}{2}$ yards of silk 21 inches wide will be required.

The pattern No. 3609 is cut in sizes for a 32, 34, 36, 38, 40, and 42-inch bust measure.

The petticoat pattern No. 3610 is cut in sizes for a 22, 24, 26, 28 and 30inch waist measure.

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

Hints on Eating.

Rapid eating is slow suicide. Plenty of time should be taken.

Dinner should be of a lighter nature in summer than in winter.

Mere gratification of the appetite is very likely to shorten life.

It is not good to dine when in a state of mental or physical weakness.

Two pounds of potatoes contain as much nutriment as thirteen pounds of turnips.

Light soups, like desserts, and light meats should have the preference in warm weather.

Fish and oysters are easily digested. An hour or two of rest should be taken after the meal.

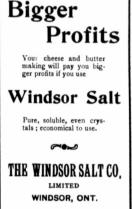
Abuse of the stomach at dinner will be paid sooner or later by that punishment which comes to the glutton.

Vegetables and fruit are to be used most generally at that season of the year in which they naturally mature.— The Standard.

The Way to Make Chestnut Salad.

To make chestnut salad shell a pint of large solid chestnuts; throw them into boiling water for five minutes, and remove the brown skins; then boil or steam until tender. When they are boiling put into a bowl a saltspoonful of salt, a dash of black pepper, one onion sliced very thin; add four tablespoonfuls of olive oil, rubbing all the while, and then two tablespoonfuls of tarragon vinegar. Pour this over the chestnuts while they are hot; stand aside until very cold, and serve on lettuce leaves. Or the dish may be covered with finely-chopped cress.—October Ladies' Home Journal.





THE FARMING WORLD

The Farming World

248

A PAPER FOR FARMERS AND STOCKMEN.

Managing Director, Editor, D. T. MCAINSH J W. WHEATON

- The Parming World is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, pay-able in advance.
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Advertising Rates on application. Letters should be addressed :

THE FARMING WORLD. CONFEDERATION LIFE BUILDING TORONTO

Prof. Harrison Returns.

Prof. Harrison, Bacteriologist at the Ontario Agricultural College, Guelph, has returned from his eighteen months' trip to Europe, where he went for the purpose of studying more closely agricultural problems dealing more especially with his own branch of work. He states that Ontario is ahead of any European country in the matter of agricultural implements but in few other lines. Canada could learn much from Denmark in regard to dairying.

Ottawa Valley Ploughing Match.

The big ploughing match for the championship of the Ottawa Valley and district took place on Oct. 24, on J. R. Booth's farm, near the Experimental Farm, and during the day was witnessed by about 5,000 people. The judges were Mr. W. Rennie of the Ontario Agricultural College, Mr. Drummond Brooklin and Mr. H. H. Mc-Kechnie of Quebec. The competition started at 8 o'clock, and each competitor had to plough one-third of an acre, the match to be concluded at 4 o'clock, when the prizes were to be awarded. The prize winners were: -Senior championship-1, \$50, presented by the Ottawa Valley Journal, John McKendry, Vernon, Russell County; 2, John Johnson, Winchester, Dundas County; 3, R. F. Ferguson, Aylmer; 4, Wm. Burden, Pontiac County; 5, James Callandar, Carleton County; 6, John Gibbons, jun, Renfrew; 7, Jos. Simple, Vankleek Hill. Junior series-1, presented by Hon. Sydney Fisher, D. McGregor, Dundas County; 2, L Cummings, Russell; 3, T. MacKay, Carleton County; 4, John Airth, jun., Renfrew; 5, Harris Brown, Beechhurg; 6, John MacDowell, Pontiac; 7, P. Cadieux, Labelle.

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Will lift 18,000 lbs. The only lifter that will. Will lear your land of large stone. Will build fences from to 5 feet high. Agricultural societies should buy it. 'armers should club together to buy it, Send for full articulars and price.

A. LEMIRE, . . . Wotton, Que. Made in Hamilton. Patent for sale





For years your neighbor has used this celebrated heater and every time you entered his house it was warm and comfortable. Yes, and his fuel account was less than yours.

WHY NOT let us furnish you with prices and specifications and then you can decide? Our quotations will greatly interest you.

Hecla Furnaces are made in four sizes and eight styles, will burn any kind of fuel. Has double door for large rough wood. Heavy flange fire pot made in two sections. The dome has fused joints absolutely gas proof. The Hecla is unequalted for Heating Capacity, Durability, Economy, and Ease of Manage-Write to ment.

CLARE BROS. & CO.

Preston, Ont. and Winnipeg, Man

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British Columbia Shorthorn Sales.

At or immediately after the combin ation auction sale recently held at New Westminister W. H. Ladner, the pioneer farmer and breeder, at Ladner, B.C., sold five Shorthorn bull calves, sired by Golden Statesman, 26924. The following were the sales :

Gen. Buller, 34883, calved June 28, 300. Sold to Jno. McLeod, Lang-1000. ley, B.C., for \$61.

Kitchener, 34885, calved April 8, 1900. Sold to John Gilchrist, Ladner, B.C, for \$80.

Our Bobs, 34887, calved April 6, 1900. Sold to Clark Bros., Alden Grove, B.C., for \$75.

Sampson, 34886 calved March 22, 1000. Sold to W. J. Harris, Wharnock, B.C , for \$70.

Goliah, 34884. calved March, 26, 1900. Sold to P. J. Heavy, Wharnock, B.C., for \$75.

Mr. Hodson's proposed sales are evidently working out well in the West.

A Warning to Breakers of Agreements.

In 1898 John Robertson, living near Ottawa, bought of an agent of the Sawyer-Massey Co., Limited, Hamilton, a crusher and engine exhibited by them at the Ottawa Fair, of that year, for \$1850, agreeing to come, after the goods and haul them home. During the time between making the purchase and taking the goods home he was induced by the agent of another firm to countermand his order and take an engine and crusher from his company. This he did, the agent in question agreeing to stand between Robertson and the Sawyer-Massey Co. in case the latter attempted to hold him to his first agreement. The Sawyer-Massey Co.'s machines were left standing by Robertson in the Railway yards at Ottawa and were totally destroyed during the big fire. The Sawyer-Massey Co. therefore entered an action against Robertson for damages, and before the trial court at Ottawa a couple of weeks ago were given judgment to the full amount with costs. The company were given a lien on Robertson's property for the full amount of the judgment, which he will have to make good unless the agent, who induced him to break his agreement with the Sawyer-Massey people and who promised to make good all loss, can be made to pay the whole shot.

This should be a warning to parties who break agreements at will. When an agreement is once made there should be no backing out by either parties unless by mutual consent, or because of a good reason for doing so.

"And now, children," said the teacher, who had been talking about military fortifications, "can any of you tell me what is a buttress?

"Please ma'am," cried little Willie, snapping his fingers, "it's a nannygoat.





BRIGHT BOYS, CIRLS and LADIES WANTED to introduce our latest fac-simil Sir Charles Tupper, etc., size or 12 Inches. For a limited time ware seeling these beautiful P roc. each, and to anyone selling 6 or more, we give handsome premiums, some of which a we are sellustrate

The cash and so any one strang our more, we are anothing premium, some of which are instantion and the **36 Valuable Premiums to Select From**. Do not delay, send us your name and address and we will send you a package of these Portraits, and our full illustrated Sheer of Premiums. Sell the Portraits, return the money and your Prize will be sent you **ABSOLUTELY FREE**. We take back any unsold pictures. This often is gonuine and open for a short The ROYAL ACADEMY PUBLISHING CO., Dept. 271, Toronto, Can.

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It will cost you less than half if you build with the

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We challenge competition for speed, ease, quality of work and durability. The **LONDON** is a thoroughly up-to-date machine and stands without a rival for weaving square mesh-coiled spring fence. The best and strongest tence in the world. The **LONDON** is sold at a price which every farmer can afford and save the price in 40 or recorde 50 rods

We are leaders in Coiled Steel Spring Wire, also common Soft Galvanized Wire. Address Write for Prices

Mention THE FARMING WORLD. THE LONDON FENCE MACHINE COMPANY RESPONSIBLE AGENTS WANTED. Office : 151 York St., London, Ont.

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The materials used are the best.

Built to last a lifetime

The mechanical and case construction is modern and durable. The **BBLL** tone is distinctly different from others, and satisfies the most

critical musician.

In buying a **BELL** you make no mistake ; there are none better. Made and guaranteed by the largest concern in the business.

The BELL ORGAN AND PIANO Co., Limited, Guelph, Ontario. Catalogue No. 41 Free

When writing to advertisers kindly mention THE FARMING WORLD.

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 hera's data proves real is not in the mattere of an auteritiement, but the weakonea. Our agtre is to 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

The draft horse is the great staple for the export trade. The exporters have run up the price as high as 5625 for a pair of draft horses, but our cities all want more big, heavy drafts, and more light, active drafts, or express and fire engine horses; in fact, the which world wants more good draft horses. The demand is greater than the supply. Germsny and Russia have no draft breeds, and are large buyers in England and France at higher prices than in America. *Live Sixek Journal*. The American draft horse has taken front rank in all the leading markets. Forty per export trade. The exporters have run up the

rank in all the leading markets. Forty per cent. of the horses sold at Chicago are draft horses, by far the largest of any one class, yet we were told that the draft horse would soon play out.

play out. Mr. James Brownlee has sold a good year-ling colt to W. Agnew, Langton, Ont. He was got by Mr. Brownlee's own horse, Keir M. (926), and his dam was Lady Stanley III. (13369), by Lothian Duke (8782), and de-scended from the famous Prince of Wales mare, Lady Stanley, which Mr. Brownlee bought at the Dunmore sale in Glasgow in 1881. To this race belongs the fine filly Damsel, which gained first prize at the H. and A.S., Stirling, the same year. — The Scot-tih Farmer. tish Farmer. Cattle.

The Short-horn herd of W. C. Edwards & Co. Rockland, Ont., has been in course of establishment for many years and the founda-tion with its latest additions consists wholly of Scotch-bred cattle of the very best individ-uality and family connection. Extensive importations have been made direct from Duthie's portations have been made direct from Duthie's herd, from Mart's and many others of the leading Scotch breeders. The importations were made solely with a view of founding a breeding herd of leading excellence and neither money nor thought has been spared. The herd includes some thirty cows, all of the inhere Santha blood and all proseed of the The herd includes some thirty cows, and of the richest Scotch blood and all possessed of the strongest individual merit and breeding qualities. It would be expected that such an equipment of females would result in every effort being made to secure the best breeding bulls obtainable anywhere. Many importabuilts obtainable anywhere. Many importa-tions have been made of young and promising stock sires with the sole idea of being sure to get the best and through this method some unusual animals have reached this herd. The unusual animais nave reached this nero. Ine first to accomplish very much was the straight Scotch bull Pioneer, which is well known in Canada because manyof his get were prominent prize winners in the calf classes at the leading exhibitions. Following Pioneer was another Scotch bull, bred at Collynie, the Knight of Scoten out, orea at Conynie, the Knight or St. John, that stood third as a two-year-old at the World's Fair. The calves of this bull maintained the prestige in the show ring that had formerly given this herd notoriety. I: has been the chief pleasure of this firm to make a specialty of showing in the call classes and it is trought winning wirse in these that and it is towards winning prizes in these that they put forth their greatest efforts. The stock sire now in use is the Marquis of Zenda, by the great Scotch sire Wanderer, while on his material side he dips deep into the best Scotch blood. It only needs a casual inspec-Scotch blood. It only needs a casual inspec-tion of the youngsters now on the farm to show that this bull as a sire is sure to make a wide reputation. He is one of those sires that any breeder is fortunate in securing once in a career. Individually this bull can hardly be improved; he is unusual in substance and scale with sufficient quality and with it all has that hold form and impressive stele which are that bold front and impressive style which are that bold front and impressive style which are characteristics of a true show animal and yet be lacks none of those genuine essentials which the Scotch breeder almost idolizes. It is altogether exceptional to find a bull of such substance and thickness of fiesh possess the init and this the Maximi does and it is in substance and thickness of these powers of the second stands in this unusual balance that his strength as an individual lies. Being by Wanderer he is re-

lated to some of the most prominent prize winners and stock sizes in other herds. The Iowa Agricultural College has at the head of its herd a half-brother of this bull. A careful inspection by an English expert, Prof. F. B. Smith, of the Agricultural College at Kent, Found drew forth the unsolicited comment: England, drew forth the unsolicited comment: "I never saw a bull so accurately resemble the great Marengo as this one does." This year at the Toronto Industrial a sensation was caused in the calf classes by the unusually was caused in the calf classes by the unusually strong showing which was presented as the get of this bull. They were first against strong competition. While beautiful in their lines, attractive in style, they yet possess the market qualities of deep flesh and even cover-ing over valuable parts which are in so much demand at this time. Natural flesh is a strik-ing feature of the whole group, while they are in no sense deficient in syle and finish. One should not be unmiadful of the fact, however, that much of the high finish which these calves that much of the high finish which these calves that much of the high minsh which these calves invariably show has been due in a large de-gree to the expert skill which herdsman Barnett so faithfully bestows upon them. The usual annual importation was made from the leading Scotch herds this summer.

Our commissioner had the pleasure of seeing these in quarantine and examining them critic-ally. They are of Scotch breeding with the Scotch individuality plainly in evidence, thick deabed measurements Sector individuality planty in evidence, this fleshed, massive, matronly cows of promising breeding merit. In some subsequent issue a more detailed description of the breeding more detailed description of the breeding animals in this herd will be submitted as it is the sole object now to briefly introduce this firm to our readers by this means and that of their advertisement which appears on page 542. They are already well known to many of the leading breeders as Shorthorne of of the leading breeders as Short-horns of their breeding have already found their way across the line, some of the most notable sales consisting of heifers added to the herd of the Iowa Agricultural College and the select breeding herd of Mr. Barclay of the same State, while single sales have been a source of introduction to many more distant poinis.-Breeders' Gazette.

Mireder's Gazette. Mr. Edwin Battye, Gore Bay, Ont., writes: Mr. Edwin Battye, Gore Bay, Ont., writes: "We have to report sales of two yearling hetfers to J. C. Evans, Crimsthorpe, Ont., at good prices. They are Matchless of Gordon, Vol. 16, out of Matchless of Elmhurst, 26450, by Royal Don, Imp. (64717); and Lily Booth, Vol. 16, out of Aggie Booth, 23077, by Quothol, 25020. Both are good ones. In fact Lily Booth is a topper. At our show here, on Sept. 27, there were about ap pure-bred animals shown, of which 30 were Short-horns and the balance Holsteins and Jerseys. We secured eight firsts, three seconds, and Norms and the balance itolsteins and Jerseys. We secured eight firsts, three seconds, and one third prize." Mr. Battye is offering in this issue three yearling heifers and one bull calf for sale at reasonable figures. The bull calf is Lord Roberts, shown in group No. 2 elsewhere in this number. elsewhere in this number.

Sheep

Four years ago S.P. Tinkham, of Anson, Me., bought two Shropshire Down ewes from Bebee Plains, Canada, for which he paid \$35. These two sheep have each raised seven lambs and are both dead, but from their descendants he has raised 55 sheep and lambs and has sold wool and lambs to the amount of \$145, and has sheep and lambs left, which will sell for \$5 cach output One the strength of the sheet of the strength of the \$5 cach output One the strength of the strength of the strength of the strength output One strength of the \$5 each, quick. One sheep weighs 195 pounds and the others from 130 to 150 pounds each. Mr. Tinkham thinks that sheep pay the best of any stock a forma can be pay the best

of any stock a farmer can keep. Mr. John Rawlings, Ravenswood, Ont., re-ports the following sales of Cotswold sheep: ports the following sales of Cotswold sheep: One shearling ram and a ram lamb to Percey Stembel, Fowler, Ind.; six 2-year-old ewes to Josephus Tapham, Forest, Ont.; seven bereding ewes to James Moody, Ont., and one ram lamb to N. W. Rucklin, Mich. He has still 25 good strong ram lambs and 2 shearling rams for sale.



LIFE OF CHRIST PREMIUM. Only one subscription needed to secure a copy of that beauti-ful book. Life of Christ for the Young, by George L. Weed, 400 pages, 75 full-page half-tone illustrations. Or any present subscriber, not in arrears, can have a copy of this book, pub-lished at \$1.00, for 50C. Remain-der of this year free to all new subscribers to THE FARMING WORLD for 1901.

Ravages of Consumption

White Plague on the Increase.

A Cure Now Within the Reach of Every Sufferer.

D^R. SLOCUM the famous scientist, whose lectures and demonstrations in New York and London this sea-son have assounded medical circles, has at last perfacted his new system of treat-ment for the absolute curve of tuberculosis ment of the absolute curve of tuberculosis new victory outsy diseases. This triamph-ant victory outsy diseases the system of the reaching in the free decally bacilli is far reaching in the free decally bacilli is far room for doubt that the gifted specialis has young of treatment is both -circling and your sources of treatment is both -circling and performing the curve step but disease and performing the curve step ve, going as it does to the very source of he disease and performing the cure step by step

First Step.-Killing the life destroying germs which invest the body.

- Second Step.-Toning the entire system and strengthening the nerves-filling the veins with tingling new life.
- Third Step.-Building healthy flesh and fortifying against future attacks.

The Slocum system cures grip and its painful after effects, dangerous coughs, bronchitis and every known form of pulmonary disease.

It makes weak lungs sound, strengthens them against any ordeal, and gives endur-ance to those who have inherited hollow chest-, will their long train of attending dangers. To enable despiring sufferers the strength of the strength of the strength danger. To enable despiring sufferers the strength of the strength of the strength danger. The strength of the strengt

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inly write to THE T. A. SLOCUM CHEMICAL 179 King St. West, Toronto, Ont., giving pert and express office address, and the free medicine (The 9 King a... lexpress office addresses here will be promptly such. Succession, as for them always mention this paper. I such advantage that the such as the forthese advantages of the Torono baker are send for samples to the Torono baker previous discouragements prevent your "this spiendid free offer before it is i

Market Review and Forecast

Office of THE FARMING WORLD, Confederation Life Building, Toronto, Oct. 29, 1900.

The universal warm weather for this season of the year is having a somewhat quieting effect upon general business. The volume of transactions is fully as large as a year ago and confidence in future trade seems unbaken. Money seems plentiful. Rates on call are 5 per cent. and 5c. to 5½ c. on time.

The wheat situation, generally speaking, shows an easier tendency. Cables have been lower, though at Chicago on Friday there was an advance of Ic. on options, which was, an advance of ic. on options, which was, however, only a recovery of the drop in prices earlier in the week. Supplies seem to be increasing, and reliable estimates indicate that there is enough wheat to supply the world's needs till next harvest, and leave a good surplus to carry forward. The acreage good surplus to carry forward. The acreage sown this fall is large and so far growing consown this fail is large and so far growing con-ditions have been favorable. At present there does not appear to be any very bright pros-pects of an advance in prices. Threshing in Manitoba and the Territories indicates a

Manitoba and the Territories indicates a much better yield than was expected a couple of months back. A Western miller estimates the yield at about 25,000,000 bushels with over go per cent, good milling wheat. No. 1 hard Manitoba is quoted at 84c. to 84/5c. afloat Fort William, and at 90c. Toronto. The market here is quiet with buyers and sellers apart. Quotations are 63c. to 63/5c. for white west, and 63/5c. to 64c. for spring east. On Toronto farmers' market red and white bring 68c. to 69c., spring fife 69c., and goose wheat 67/5c. per bushel.

Oats and Barley.

Though cable reports show some improvement, there is no improvement in prices on this side. The general market is depressed because of reports of extra large yield in the United States. Oats are quoted here at 25c. bid for No. 1 east, 24c. for No. 2 middle freights, and 32c. west. On farmers' market oats bring 29c. to 30c. per Jushel. There is some inquiry for barley for export. The market is dull here at 44c. to 45c. for No. 1 east, and 37c. to 30c. for No. 2 and No. 3 west, and on the farmers' market at 43/2c. to 48/4c. per bushel. this side. The general market is depressed

Peas and Corn

The market for peas keeps steady. Quota-tions here are 59c. east, 58c. middle freights, and 57c. west, and on farmers' market 59c. per bushel.

The American corn supply is now regarded as ample for all requirements. American No. 3 yellow is quoted here at 48½ c. Toronto.

Bran and Shorts.

Manitoba bran at Montreal has been reduced to \$15 per ton. Ontario bran is quoted there at \$14.50 to \$15, and shorts at \$16 to \$17 as to grade. City mills here sell bran at \$13.50 and shorts at \$16 in car lots, f.o.b., Toronto. Ontario bran is quoted there

Eggs and Poultry.

Prices for eggs keep up. A better demand is reported in Great Britain and more Cana-dian held stock is going forward. Exports so far this season show an increase of 26,441 cases. Montreal quotations in a wholesale way are about $15\frac{1}{2}c$. Offerings are more liberal here, though prices have not changed any, quotations being 17 to 18c. in round lots for fresh-gathered. On Toronto farmers'

lots for fresh-gathered. On Toronto farmers' market ggs bring 19 to 23c. ver dozen. Quite a lot of live chickens are being bought in the country, for which farmers are receiving fair prices, about 54c. a pound. A few lots of dressed poultry have gone for-ward from this city, but as the weather has been warm shippers prefer to wait awhile. The supply and demand are both limited here, owing to unseasonable weather. The best fowl are easily sold, but other quality is

inclined to drag. Ducks are quoted at 45 to 65c., and chickens at 30 to 50c. per pair, and turkeys at 10 to 11C., and geese at 6 to 7c. per lb. in large lots. On the farmers' market per lb. in large lots. On the farmers' market quotations are : Chickens, 40 to 60c. ; ducks, 60 to 90c. per pair ; and turkeys, 10 to 132c., and geese, 6 to 81c. per 1b.

Potatoes

Potatoes show little improvement. Quotations here are 27 to 30c. per bag for car lots on track, and on farmers' market, 30 to 35c. per bag.

Hay and Straw.

Prices for baled hay keep steady. Mon-treal quotations are \$8 to \$8.50 for No. 2 and \$9.50 to \$10 for No. 1, and \$7.50 for clover in car lois. Farmers are inclined to hold. in car lois. Farmers are include to hold. Americans are buying east for the eastern States. There is no change in prices here and the demand is good. On Toronto farmers' market hay brings \$13 to \$15.00; sheaf straw, \$12.50, and loose straw, \$6 per ton.

Seeds

The market keeps dull and prices are weak in sympathy with slump in United States markets. Quotations are alsike \$5 to \$5.60, red clover \$5.50 to \$6 per bushel and tim-othy \$2.75 to \$4.50 per cwt. There is a boom on in flax seed at Chicago owing to re-ported scarcity. Prices there ran up to \$1.85per bushel, the highest ever known.

Fruit.

Cable reports for apples are weak and low-er owing to increased receipts. Sales have been made at Montreal of choice winter varieties at \$1.75 to \$1.85 for fine assort-ments. At Ontario points holders are asking \$1.75 to \$1.80 for choice varieties. Though weaker, prices are away ahead of what was offered in the country a few weeks ago. At Toronof ruit market annues are guoted at 75c. Toronto fruit market apples are quoted at 75c. to \$1.5 per bbl,

Cheese

Prices last week were disappointing and showed a drop of ½ to 5%c. from the week previous. The October make has been large previous. The October make has been large and it is reported that the bulk of September goods are out of the factorymen's hands. English buyers are evidently withholding their orders with the view of getting supplies cheaper later on. Late in the week the Liver-neal analyheid texted on the unward grade checkper later on. Later in the week the Later of pool cable had started on the upward grade. Montreal quotations are 11 to 11%c. for finest westerns and 10% to 11c. for finest easterns. At the local markets prices ruled b_c , lower, with quotations at 10% to 10%c. which factorymen were not inclined to accept.

There is evidently a better feeling in butter. Shipments continue to show a large

falling off, as compared with last year. The *Trade Bulletin* summarizes the situation as follows :

follows: "There is evidently a better feeling in the butter market on both sides of the Atlantic. As will be seen by a special cable from Lon-don to the *Trade Bulletin*, prices there have advanced 2s. per cwt. since our last report, with a good demand at the advance. Man-chester is also cabled higher. In this market replace are, form at god, the gate for choice. values are firm at 2034 to 21c. for choice, late-made creameries, although some very fine factories have been placed at 201/2c. fine factories have been placed at 20156. Second grades have been sold at 192 to 2014 c. There is some demand from the Lower Provinces and Newfoundland, and a few lots have changed hands for those desti-nations. An occasional lot of butter has also been shipped west from this city. The make of cheese has been so large that in some sec-tions there has not been sufficient butter pro-duced to supply the local demand." Creamery is firm here at 22 to 32c. for prints, and 20 to 21c. for tubs and boxes, and prices are expected to strengthen. There is a fair demand for dairy at 18 to 183c. for lb.-rolls, and 17 to 18c. for tubs. On Toronto farmers' market lb. rolls bring 19 to 23c.

farmers' market lb. rolls bring 19 to 23c. each.

Cattle

A better tone prevailed at American markets last week and at Chicago choice beeves touched the \$6 mark. Feeders and stockers touched the \$0 mark. Feeders and stockers have been a little slow. At Toronto cattle market on Friday there was a large run of live stock consisting of 813 cettle, 4,013 hogs and 1,232 sheep and lambs, with a few calves. The quality of fat cattle offered was only madium Gille loads of accordars ware offered medium. Six loads of exporters were offered, some of which were only short-keep feeders. some of which were obly short-keep recurs, Very few well-finished butchers' cattle have been offered and too many cattle come to market that it would have paid the farmers to keep till hery were finished. There were so many of this class offered on Friday that it was hard to sell them. Trade was dull for export cattle and medium butchers, while well-finished butchers' cattle were scarce and in good demand.

APPLES FOR EXPORT

All desirous of exporting apples to the British mar-kets will be furnished with reliab'e information by writing

EBEN JAMES

Board of Trade Building, Toronto, Canadian Agent for

Woodall & Co., Liverpool Boyd, Barrow & Co., Glasgow M. Isaacs & Sons, London

Proceeds advised by cable ; day of sale remitted same night from Toronto.



Export Cattle - Choice lots of these are * Extont Cattle — Choice lots of these are worth \$4 so to \$4,45, and light ones \$4 to \$4 so \$5,4 to \$5,4 so \$5,4 to \$5,3 to \$4,45, and light ones at \$3,12,2 to \$3,35 per cwt. Loads of good bucchers' and exporters' sold at \$3,00 to \$4,10. Butchers' Cattle. — Choice picked lots of these equal in quality to the best exporters', weighting Loco to 1,100 bls. each. are worth

these equai in quanty to the nest exporters, weighing 1,000 to 1,100 lbs, each, are worth \$4.40 to \$4.60; gord cattle, \$3.75 to \$4; medium, \$3.25 to \$3.60; and inferior to common, \$2.50 to \$3.50 per cwt.
▶ Fetders.—Weil-bred steers are in demand for feeding purposes. Heavy steers, 1,000 to 1100 hereding output of the steers are in galaxies.

for leading purposes. They see a provide a provide the sector of good breeding qualities, sold at \$3.60 to \$3.90, while poorer quality of same weight sold at \$3.40 to \$3.50 per cwt. Short keep feeders, 1,100 to 1,200 in weight, Short keep recerts, 1,100 to 1,200 in weight, in good condition and requiring finishing for export, sold at $\$_4$ to $\$_4$.15 per cwt. Light steers, 800 to 900 each, sold at $\$_3$ to $\$_3$.25, and bulls, 1,100 to 1,600 each, $\$_3$ to $\$_3$.25 per cwt.

Stockers .- Yearling steers, 500 to 600 lbs. seach, sold at \$2 25 to \$3, and other quality at \$1.75 to \$2 per cwt. Stock yearling bulls, 600 to 900 lbs. each, sold at \$2 to \$2.25 per cw

Milch Cows .- These sell for from \$30 to \$52 each.

Calves.-Calves were a quarter higher at Buffalo on Friday, quo'ations being, choice to extra, \$8 to \$8.25, and good to choice, \$7.50 to \$8 per cwt. At Toronto market calves bring from \$3 to \$10 each.

Sheep and Lambs.

Canadian lambs are quoted at Buffalo at \$5.50 to \$5.60 per cwt. for good to extra. Sheep, choice to extra, \$3.75 to \$4; good to choice, \$3.25 to \$3.50; and yearlings, \$4 to \$4.50 per cwt. Owing to a better demand at choice, $\sigma_{3,e_{3}}$. \$4.50 per cwt. Owing to a better ucume Buffalo, the Toronto market, though the run Buffalo, the Toronto market, though the run Prices were \$3.25 to the run better to a better ucume. \$3.50 for ewes, and \$2.50 to \$2.75 for bucks. Spring lambs sold at from \$2.50 to \$3 each, or \$3.50 to \$3.75 per cwt.

Hogs.

As we indicated in last week's report, prices As we indicated in last week's report, prices for choice bacon hogs have taken another drop, owing, no doubt, to the largely in-creased supply, and the season of the year arriving when game poultry, etc., takes the place of bacon in Great Britain to a very large extent. On Friday, choice, select bacon hogs, 160 to 200 lbs, in weight, unfed and un-watered. off cars. solid at 52.75. and thick and hogs, 100 to 200 ros. In weight, unce and unwatered, off cars, sold at \$5,50 are with unce the data and the sold at \$5,50 per cwt. Unculled car lots sold at \$5,60 to \$5,70 per cwt. The Montreal market is easier. Picked lots bring \$6, and heavy averages \$5.75 to \$5.85 per cwt. The Trade Bulletin's London cable of Oct. 25 re Canadian bacon reads thus: "The quieter feeling cabled by me last week has been fol-lowed by a weak and lower market, Cana-dian bacon having declined 1s to 2s per cwt. Montreal choice, lean sides, 60s to 62s; No. 2, 563 to 58s."

Horses

About 100 horses were sold at Grand's Re-pository. Toronto last week. Heavy work-ing horses sold fairly well, but drivers and other horses did not sell so well. Trade all round was h owever, better than last year at this time. The following are the prices brought at sale of ranch horses held at Grand's on Oct. 19 Oct. and 20. Every head was actually sold, nothing left over :

Ponies under 14 hands.-16 sucklings, \$12 to \$19 each ; 10 yearlings, \$15 to \$23 each ; 54 mares and geldings, 2 to 8 years old \$20 to \$45 each.

to \$45 each. Draught Bred Horses.—15 sucklings, \$23to \$45 each; 35 two and three year olds, \$40to \$80 each; 7 yearlings, \$35 to \$50; one four-year old block, \$90; 15 brood mares 6 to 10 years, \$40 to \$80; one well-broken saddle horse, 15¹/₂ hands, Rosa Golding, 6 vears, \$150.

Apple Market Report.

"Bow Park. Brantford, Oct. 26, 1900. "Messrs. Simons, Jacobs & Co., Glasgow, cable their market as follows : "Fancy, sound

stock in demand at a shade more than our highest quotations. Common grades, weak, at about 1s. less than our lowest. Fruit, out at about 1s. less than our lowest. Fruit, out of condition, 2 to 3s. less. Baldwins, Green-215; Spitz, seeks 14 to 163; ; Kings 18 to 215; Spitz, seeks 14 to 163; ; Kings 18 to 215; Spitz, Spitz, Gravensteins, 20 oz. Pippins, 148; 6d. to 175; ; Golden Russets, Colverts, 13 to 155; ; Snows, Cran. Pippins, 155; 6d. to 7k; " 184

18.," Messrs, Garcia, Jacobi & Co., London, cable: "Market for good, sound fruit active, prices steady. Baldwins, etc., 14 to 16s.; Greenings, 15 to 17s.; Kings, 18 to 20s.; common grades and conditions, 2 to 42s.; less than above quotations for best, sound stock."

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