Every Week—$1.00 a Year. Toronto, April 15, 190[illegible]

THE Farming World

Address "FARMING WORLD" CONFEDERATION LIFE TORONTO

FOR FARMERS AND STOCKMEN

The Farming World

For Farmers and Stockmen

Vol. XX. APRIL 15th, 1902. No 15

Annual Horse Number.

NEXT week our annual horse number will appear. Breeders and others interested in promoting the breeding of a better class of horses in Canada will find in that number information of special value. Among its valuable features will be an article dealing with the kinds of horses the market demands accompanied by illustrations of the types wanted. There will be a detailed and comprehensive report of the horse show held last week and other up-to-date matter of value to every horseman. Farmers and others desiring extra copies for friends should send in their names early. An extra large edition will be issued.

The East Not in Touch With the West.

Our Western correspondent this week touches on a question of vast importance to every Canadian, that is the relations, political and otherwise, between the rapidly developing West and the more or less slow-going East. There is, no doubt, a feeling of restlessness exists in Manitoba and the West because of the seeming restraint upon legislation and other matters affecting Western Canada by the older provinces of the East, which at present control the affairs of the Dominion. We hardly think, however, that such a feeling is fully justified by the attitude of the people of Eastern Canada upon all questions affecting the West. As a matter of fact, the people of Ontario and the other Eastern provinces rejoice in Western development and Western progress and would not intentionally do anything to check that progress or expansion. And this is the proper attitude to assume. To build up a united, progressive and aggressive Canada there should be no rivalry as between the East and West. While local conditions may vary and diversified needs prevail there should be enough of the spirit of sacrifice on the part of the people of both the East and the West to make the whole Dominion the first consideration in matters of legislation and public policy. In this way alone can a great country and a united and progressive nationality be developed on the northern half of this continent.

But to foster this spirit there must be more inter-mingling and a wider knowledge of each other's conditions between the people of the East and of the West. We quite agree with our correspondent's view, that Eastern public men, and especially members of Parliament, should visit the West and familiarize themselves with its needs and possibilities more than they do. In fact, we would go further and state that no federal member should consider himself equipped for transacting his duties at Ottawa intelligently and conscientiously until he has made such a visit. No one can become imbued with the spirit of the West, its hopes and its aspirations, as every Canadian public man should be, until he has come directly in touch with the people of the prairie, and the many and varied conditions of a new and progressive country.

The hope of Canada is in Western development and progress and in the development of the newer districts of this and the other provinces of the Dominion. Let every citizen then, broaden his horizon and look beyond his own immediate circle and he will have greater sympathy with, and a greater desire to help those engaged in developing these newer portions of the Dominion. The power, which is at present centred in the East, should not be used for selfish purposes. There may come a day, and that not very far distant, when, so to speak, "The tail shall wag the dog," and the Western prairies assume control of matters affecting the legislation of the nation. When that time arrives, the people of the East, unless they have dealt generously with the West, will not be in a position to demand similar treatment for themselves.

A Railway Commission Promised.

The Hon. Mr. Blair, Minister of Railways, introduced a bill at Ottawa last week providing for the appointment of a railway commission to take the place of the railway committee of the Privy Council. The bill provides for three commissioners, who are to hold office during good behavior for ten years, are eligible for reappointment, and are removable only by the Governor-General on the address of both the Senate and the House of Commons. Upon the commission is conferred all the powers now held by the railway committee, while its scope is much wider, covering railway rates and the supervision of all dealings and the adjustment of all disputes between the railways and their patrons. The commission will also deal with matters connected with the carrying trade on lakes, rivers, and canals.

The introduction of this measure means much to the people of Canada and marks an epoch in the transportation development of this country. It is a recognition on the part of the government that the people have a right to control their own highways. Though it may not prove a panacea for all the transportation ills from which this country is suffering, it certainly provides a tribunal to which if the right stamp of men are selected as commissioners the people can bring their grievances and feel that they can have them dealt with in a fair and impartial manner. The producing classes in this country, who are the ones who suffer most from unjust discrimination in transportation rates, have a right to some consideration, and it is to be hoped that when this commission is in full working order freight rates of all kinds will be placed upon a fairer and more equitable basis than they are at the present time. Give the Canadian producer what is due him in the way of fair transportation rates and accommodation and he will successfully compete with the producer of any other country in the world's markets.

The Cream Gathering System.

In our correspondence column this week appears another letter from Mr. I. W. Steinhoff, dealing further with the question of cream gathering creameries. Mr. Steinhoff seems to infer from our remarks in connection with his former letter that our sympathies are with the cream gathering system as against the factory separator plan. We have no particular leanings one way or the other. We have watched the development of the creamery business in this and other countries for several years and it seems to us, though our conclusions may be wrong, that the farm separator plan of the cream gathering system has come to stay. If this be the case, and the growth of this system in the Western States, in the Territories and in Manitoba, where it is claimed good merchantable butter is being made, seems to prove it, then our contention is that dealers and others interested should accept the inevitable and inaugurate measures, educational and otherwise, to have the business carried on in the very best way, and

the cream delivered in a better condition by the patron.

As was shown by Mr. Ruddick in our dairy number last week, it is possible to carry on the farm separator plan in such a way as to make good butter. It would seem as if the operators of this system have gone too far in their desire to be lower the cost of production and have not collected the cream from the patron often enough. By collecting say, every other day, and by having the patron take a little better care of his cream it should be possible to make as good butter by this plan as by the factory separator plan. It, however, makes little difference which plan is adopted so long as the quality is of the best. Care and attention on the part of the patron is required, no matter what system is followed, and every effort should be made to have the quality kept up to the standard and our export trade in butter developed to the greatest possible extent.

The Tuberculosis Scare.

The "Scottish Farmer" has a recent article on this subject and says that the result of Dr. Koch's statements will not be very much relaxation in the British regulations because the disease in animals, if not dangerous to man, causes a great loss to the British farmer—and adds:—"At the same time it is not absolutely certain that there will be no modification of existing foreign regulations. The resignation of Professor McEachran as chief inspector for the Dominion of Canada may mean many things, although an entire change of policy need not be one of them. No veterinary authority at home or abroad is more out and out in his adherance to the tuberculin cult than the Canadian professor, but even he, is not infallible, and his removal from the seat of supreme domination may mean some relief to stock owners. That it will mean the rescinding of the present regulations regarding the testing of pure-bred cattle would, however, be too much to expect—Canada and all other foreign ports must import healthy cattle, if they import at all, and so long as faith in the tuberculin test holds it will be enforced."

To Buy Canadian Eggs.

It was announced last week that the great packing house of Swift & Co., Chicago, were making arrangements to buy eggs in Canada this season. A bonded warehouse will be established at Buffalo and the Canadian purchases sent there where they will be kept in bond until sales are offered which means that no duty will be paid until the eggs are sold. Some knowledge of the largeness of the undertaking may be gathered from the fact that Swift & Co., will have to pay a U. S. Government inspector $3 per day while operations are continued and a bond for $15,000. It all helps trade, however, and should put money in the pockets of the Canadian poultry raiser.

The Canadian Horse Show

The Eighth Annual Horse Show, was held in the Toronto Armories, on April 10, 11 and 12. The weather at and before the opening of the show was very unfavorable and this continued for the two first days of the show. The attendance was better than ever before, the crowd increasing as the excellence of the show became known. There were many visitors from many parts of Canada, and from several of the American cities.

The attendance of farmers, however, was very limited, the masses of our Canadian country breeders being conspicuous by their absence. It was hoped that the earlier date at which the show was held this year would have attracted a larger number of farmers. The early season, spring work having begun in many parts of Ontario, kept away many whose presence one would be glad to see at the spring show.

The classes for breeding stock were only fairly well filled while those for saddle and driving horses were unusually full, and the animals shown were generally of excellent quality and a decided improvement in quality over the average of the earlier shows. This improvement was so marked as to call special remarks from many old patrons of the show. The educational advantages have thus been clearly shown. The standard of excellence is decidedly higher than it was eight years ago—while the show has not brought out any phenominal animals it has brought together a lot of good average quality with fewer poor ones than have before been seen.

Driving and harness horses made an excellent show and the hunters and saddlers were also worthy of special mention. In heavy draught horses the teams made a very grand show. The winners were Graham Bros., pair of Clyde mares; Geo. Moore, of Waterloo, being second and J. Gardhouse, with his shires a good third. In Hackneys, R. Beith's new stallion "Alarm" which he got in trade for the last year's champion Robin Adair, was a clear winner though he is a light weight champion.

A new feature was the prize for the best single draught mare or gelding. This was won by Moss Rose 2nd, by McQueen, shown by Graham Bros., a mare of outstanding excellence. Mr. Gardhouse in Clydes an imported horse, Strathcona (3238) by The Gallant, brought to Canada by Dalgety Bros., of London, Ont.

In the aged class for Clydes there was a good show and for the first time a Canadian bred horse—Lyon Stewart—bred by John Stewart-Springbank who has bred many good ones was placed first. He is now owned by H. G. Boag, Churchill. He is a strong made well balanced going horse. There were some good Shire mares shown all bred by Morris, Stone and Wellington, Fonthill. The younger class in heavy horses were not as well filled as they have been at previous shows, but what were out were of fairly good quality. An extended report of all the classes will appear in our special number next week, together with illustrations of some of the chief winners.

Horse Breeders' Meeting.

There was a meeting of prominent horse breeders at the Toronto Horse Show. Both light and heavy horse men were interested and the question specially discussed was the proposal to hold a breeders' show at an earlier date than would be suitable for the present show. The early part of February was the time favored and the place either Toronto or Guelph, as might be found best suited to the visitors and breeders, always looking toward the accommodation and advantages that would be offered. It was thought the show should be for breeding stock, light and heavy and should be continued a full week—opening on Monday morning and closing Saturday night.—The horses to be stalled in the building and open for inspection at all hours the exhibition was open. Educational features are to be a strong point in the new show. It is proposed to organize classes in judging horses from the different provinces of the Dominion and have expert lecturers to give instructions to these visitors and arrange for prizes for the best score card judging in the classes. This will require lecture rooms of good size, convenient to and connected with the show. This feature will make quite a new departure in the horse show features in Canada.

Successful Dairy Students.

Of the 81 students who attended the Western Dairy School, Strathroy, this winter, 25 wrote on the examinations held at the close of the term. The following is their standing in order of merit: David A. James, H. Goodhand, Jas. R. Burgess, Wm. D. Cousley, Robert Smith, T. H. McCormick, Fred Pratt, Thos. W. Tate, Fred A. Keillor, R. M. Durrant, R. A. Riesberry, James Ross, Alex. Duff, H. J. Jeavons, W. A. Pickell, B. B. Crawford, Frank A. Smith, W. J. Shannon, J. F. Davis, J. D. Reynolds, Wm. Stewart, Laurence Loree, James Stewart, A. L. Graham, Arthur Cox.

Dr. Smith Dined.

Dr. Andrew Smith, the retiring president of the Industrial Fair Association was tendered a complimentary banquet on Tuesday evening last at the Albion club. His valuable aid to the Industrial was fully recognized in the speeches of the evening which were full of good wishes for Canada's Great Industrial Exhibition.

Our Western Letter

Eastern Canada not in Touch with the West. A Live Stock Commissioner. Calgary Sale. Manitoba Floods.

Winnipeg, April 7th, 1902.

The West has been called the land of kickers, by which we suppose it is intended to convey the impression that this country is too much inclined to air its grievances real or fancied. We make no apology when confronted by this accusation; we blush not a single blush when the fact is mentioned. The free and independent West has been built up by men strong and courageous and far sighted enough to leave beaten paths and cut roads for themselves in the new and untried land. Their self reliance, their enterprise and their success entitle them to a respectful hearing. When they speak it is not for the pleasure of hearing their own voices, and when they "kick" it is because something needs remedying and needs it badly.

One of the principal reasons that the West is obliged to do so much kicking is the simple fact that of the wise men in the East who control the destinies of the nation the greater number know us only by hearsay. Of the legislators who sit at Ottawa a small minority only have visited Western Canada, not one-tenth of them have made a thorough personal investigation of the great West, its needs and its possibilities. Ontario and Quebec have no conspiracy against the West but in dealing with western questions they are almost as much in the dark as they would be in dealing with the Manchurian treaty or the Venezuela boundaries. Let an eastern M.P. live for one year on the prairie, let him see one seed time, one harvest, one winter and thenceforth he will have nothing but sympathy for the "kicking" West Representation by population is a fine sentiment for the majority. To the minority it is not so agreeable, especially when the minority live under conditions quite unknown to the majority, or known only through the hearsay evidence of others and the perusal of newspaper reports.

There are several points upon which there exists a difference of opinion between East and West. These or some of them are subjects of discussion at each session of parliament. Manufacturing and agricultural communities cannot be expected to see eye to eye in all matters and of course the minority must be sacrificed to the majority. It is unpleasant, even though not greatly troubled by diffidence, to be obliged continually to shout, "We're Here" but while Ontario nurses the fond delusion that Canada consists of one province and a few outside points of little importance, just so long will this unpleasantness be ours, to eat, live and sleep with.

This tendency to subvert all interests to those of the East will some day receives rude shock. The West is at the present moment overrun with land seekers from the United States. They are coming in tens of thousands. They will be a new element in Canadian politics that will perhaps overthrow some of the little tin gods we have set up in our midst. They will be bound by no ties of loyalty to Eastern Canada, which will be to them a name only. Canada will mean the West, just as it does to the children now growing up on prairie farms. The West is growing away, and will continue to grow away from the East because the East looks upon the West simply as a tributary territory, a market for surplus products—much indeed as the nurseryman of the Niagara peninsula regards the rest of Ontario. To arrest this movement should be the endeavor of every statesman who has at heart the interests of Canada as a nation. The interests of West and East can be harmonized only by mutual concessions. While the East clings to the idea that she has created the West, and that the latter should play the part of a dutiful child, just that long will there be "kickers" in the West.

Others besides members of parliament might also take these facts into consideration. There are officials in the pay of the Federal Government who have through the fact that they reside in the East lost the sense of proportion and forgotten that Ontario does not extend from ocean to ocean.

* * *

The Manitoba breeders have not yet given up hope of securing the appointment of a Provincial Live Stock Commissioner. The long recognized need of such an official and the importance of appointing a man thoroughly in sympathy with the requirements of the breeders, will doubtless have considerable weight with the government. The matter is quietly resting at present so far as outward appearances are concerned, but we believe that this calm surface masks a strong current towards the one possible outcome of the movement. Just here it might be remarked that this object has been sought for some years past by the breeders and is not the outcome of unconsidered agitation. In fact everyone in any way connected with the stock industry has been working for the appointment of such an official during the past two years at least. Manitoba breeders are now in a position to export, and do export pure-bred stock of the premier quality, and feel that, equally with Ontario breeders, they require a representative having their interests at heart.

* * *

We are informed that several Manitoba breeders, among them Hon. Thos. Greenway, wished to enter animals for the sale to be held at Calgary on the 14th to 17th May, but their applications had to be refused, since the government grants in aid of the sale were intended to assist the Territorial breeders.

The above mentioned event promises to be an entire success. Upwards of 200 animals have been entered and more are promised. A stallion and bull show is included in the programme as well as public meetings and a banquet, when speeches will be delivered by prominent officials of the Dominion and Ontario Agricultural Departments. Programme and full details may be obtained from Chas. W. Peterson, Deputy Commissioner of Agriculture, Regina.

* * *

A great deal of sensational "information," so called, has been circulated throughout the south and east about floods in Manitoba. Most of this has been absolutely false, and all grossly exaggerated. There has been high water in the Assiniboine and Red rivers and their tributary streams. These have flooded many low-lying districts, but the idea that Manitoba has been devastated and her people left houseless and homeless is too absurd to require contradiction. The little river in Western Ontario, called the Thames did more damage in one summer night some years ago when we lived on its banks, than all the rivers in all Manitoba during the two weeks they have been in flood.

More About Wool.

What about wool, is the question that many farmers will be asking shortly? For several years the Canadian farmer has not made a fortune out of his wool. Prices have ruled low and the demand has been anything but active. However, as we pointed out a few weeks ago, there is a little more interest and the wool situation has a brighter outlook, even for Ontario wools. The situation elsewhere is bright, which should have some effect upon the market for Canadian wools

Prices here are affected, perhaps, more by the American than any other market. The outlook there is reported to be very promising. In the West and Southwest, purchasers have shown their anxiety to secure as much of the new clip as possible by buying at prices averaging two cents above Boston prices. This would indicate that a higher range of values is expected later in the season. Some fine unwashed Michigan (mostly cross-breds) wools are reported to have sold on Boston market within the past ten days at 18½c, which would mean about 15½c to 16c for the same class of wool in that State.

Other wool centres also show an improvement, and the outlook, generally speaking, is much brighter than a year ago. At the London wool sales, which closed the last Wednesday in March, prices were strong, especially for fine

wools, while crossbreds advanced about 5 per cent. The coarse wools were the weakest, and at the close of the sales were weaker than at the beginning.

In the Australian Pastoralists Review for February, the English wool correspondent, writing from Bradford about the middle of January, gives some encouraging information as to the outlook for wool for 1902. The year opened with very light stocks on hand. In London, England, at the beginning of 1901, there were 133,000 bales carried over, while at the beginning of the present year there were only 43,000 bales, and not more than 12,000 of these were merinos. Referring to the trade of 1901 he points out that the sad feature has been the great fall in mediums and crossbred wools. So low were the prices for some of these grades that they were as cheap as cotton, a most unusual state of affairs. But the prices for crossbreds have advanced and the outlook for this quality is bright. Speaking of the outlook in England, he points out that there is nothing to hinder a quickened pace, increased consumption and, best of all, higher prices, but the prolongation of the South African war, and even this will not have the effect many expect. The textile industry seems to be flourishing and business in wools generally good.

Prevention of Smut in Wheat.

In The Farming World of March 25th, we gave some information regarding the prevention of smut in oats. We have since then received some literature from the Department of Agriculture at Ottawa dealing with the prevention of smut in wheat. The remedy advised is very similar to that recommended for the treatment of oats and is in part as follows:

"Smut in grain is caused by fungous growths on the grain plant, eventually destroying the seed of the affected plant, and contaminating the seed of the healthy plants by the scattering of spores largely during the ripening period of the grain. The dust-like spores, when dry, are readily blown to adjacent plants, or, coming in direct contact with healthy ones, inoculate their neighbors, which in turn continue to propagate the species.

"The smut affecting the crop lives during the winter as spores on the seed grain and begin their deadly work shortly after the seed is sown. The affected plant makes a sickly growth, and generally heads lower and somewhat later in the season than the healthy plants; therefore, the extent of damage to the crop is not noticeable by casual observation. It is largely due to these facts that smut has been able to invade grain fields unnoticed by the farmer until it has gained a strong foothold.

"Prevention is better than cure. Instead of the farmer allowing smut to develop he can treat his seed in such a manner as to prevent it altogether. If fifty bushels of seed grain are to be treated, secure from a drug store one pound or a pint of formaldehyde, sometimes called formalin. Put into a barrel or cask 50 gallons of water and pour in the one pound of formaldehyde liquid to make the proper solution. Dip out about one half of the solution into another cask in order to treat two sacks of grain at the same time, thus facilitating the work. Place about two bushels of the seed grain in each of two gunny sacks or large bags, and submerge the grain in the solution for twenty minutes. Then lift the sacks from the casks and let them drain for a minute or two so as to save solution. Empty the seed on a threshing floor or on a canvas to dry, and proceed as before, using the same sacks for the remainder of the grain."

Spraying for the San Jose Scale.

No insect pest has received more attention through the press and otherwise and deservedly so, than the San Jose Scale. Orchardists cannot be too watchful, or too careful, in regard to this pest. In a Press Bulletin just issued by the Ohio Experiment Station some useful information is given from which we take the following:

Resin washes, composed of resin, potash and fish oil, have been found to be efficient, but are troublesome to prepare in a small way. The same is true of a whitewash made of lime, sulphur and salt. Whale oil soap, when used as strong as two pounds to a gallon of water, and applied with thoroughness, is a good remedy. Its cost precludes its use in many cases and the difficulty of finding suitable weather conditions for the application of it make results with it quite variable. While not without objections, crude petroleum has been found, in most cases, to meet the requirements better than any other remedy yet tried at the Ohio Experiment Station. The thin, light grade is safer and less troublesome to use than the thick, heavy grade, although when diluted with water the latter is less objectionable than if used clear. Refined oil is more harmful than crude.

Good results have been secured in spraying scale-infested trees with 25 per cent. of crude petroleum and water, also with higher percentages of oil. Trees have been injured, and even killed, with 25 per cent. of oil. On the other hand many thousands of trees, in all parts of the country, have been sprayed with clear crude petroleum, and with various percentages, without injury.

The manner of spraying has much to do with the effect upon the trees. When the material is applied in such quantities as to run down the limbs and bodies of the trees injury is almost sure to occur even if the oil is diluted with water. Sometimes the operator, trusting to dilution to prevent damage, sprays excessively, or until the mixture runs down to the roots. The oil is thus unevenly distributed and unknown quantities reach certain parts of the tree, resulting in local injury.

Peach trees are very tender and should be sprayed with more than ordinary care. If whale oil soap is used the work should be done just as the buds are swelling.

The only safe way is to stop spraying before the material begins to run, and this rule applies to diluted as well as to clear crude petroleum. With a suitable pump, like the Spramotor, 25 to 50 per cent. crude petroleum can be used safely and economically, but if the pump cannot be relied upon to give accurate percentages then clear crude petroleum may be applied with any pump. A nozzle which will give a fine spray is needed in all cases and for this purpose the Vermorel is satisfactory. Choose a day for spraying with crude petroleum when evaporation is rapid, as greater injury is done in damp than in drying weather. If the sun shines and the wind is blowing all the better. A light wind is not advantageous but a brisk or high wind assists operations materially. When there is no wind begin at the top of the tree, spraying around the tree, and work downward rather than upward. Avoid double applications, such as may result by spraying up and down the tree. If the wind is brisk hold the nozzle high and let the material drift through the trees. In this way trees some distance away may be covered almost as well as those near by. The operator must shift his position and change the height of the nozzle as experience shows to be necessary. When the wind changes another application must be made on the other side of the trees. There is less danger of overspraying in a high wind than when the air is calm, but there is also a greater probability of missing parts of trees. In early spring, just before the buds open is the best time to spray, although no harm may be done if the work is performed earlier. The work can be done much better if the trees are first severely pruned by cutting off the ends of the branches. In case trees are seriously infested this operation is necessary in order to secure good results, after removing one-third or one-half of the top. Peach trees will endure very close pruning and no harm will be done if the top is all cut away and a new one started. Close pruning also assists the trees to recover from the weakening effects of the scale.

—"When I get to heaven," says Mrs. Boston Commons, "I will ask Shakespeare who wrote his plays."

"He may not be there," replied Mr. Boston Commons.

"That's true," she continued; "then you can ask him."

—"It is said that even the hairs of the head are numbered."

"Yes, I know, but a good many of them are back numbers."

"De reason some of us doesn't git along," said Uncle Eben, "is that we sits down dreamin' of automobiles when we orter be pushin' a wheel-barrer."

Correspondence

Cream Gathering Creameries.

Editor THE FARMING WORLD:

Will you kindly allow me space for a short reply to your comment upon my letter re extension of cream gathering system of butter making. First you say you have no means of knowing how far my remarks regarding the flavor of cream gathered butter were according to fact; surely the exporters and those handling the butter should be the best authority and they are not away in any foreign country where you cannot get access to them, and I submit that it was in the best interest of Canadian Creamery butter that you should have got this information before you rather sided with the move to extend the system, this information being so easily obtained. I agree with you that this is the crucial point and if I am wrong in my statements of quality, my arguments should be knocked to pieces at once. To assist you in getting this information outside my own statements, I refer you to the following heaviest exporters in the Dominion:—Messrs. A. A. Ayer & Co., Hodgson, Bros., Lovell & Christmas and D. A. McPherson & Co., Montreal, and T. Ballantyne & Sons, and others, who are handling the butter in Western Ontario. Also to Professor H. H. Dean, of Guelph Dairy School, where I understand both systems have been tried during the past winter.

Your second point is that you think the farm separator solves the difficulty. In my letter it is true that I spoke of the product as I have found it from the standpoint of a dealer without discussing causes or suggesting remedies, and I will now add that I don't take the ground that means cannot be devised whereby fine butter can be made upon the cream gathering system; but as practised at present the extension of the system is a menace to the name of Canadian creamery butter and a system that does not produce right quality should not be encouraged.

I do not think however that the remedy is to be found in farm separators alone as I have been informed by creamery men that some of their worst cream was received from patrons who separated their cream at home; the difficulty is that those who had gone to the expense of getting a separator seem to consider that that is all that is necessary and as a consequence stored no ice and gave but little care or attention to their cream after the separation had taken place. Then separation of cream on the farm does not overcome the objectionable feature of the very ununiform methods practised of holding the cream; the frequent holding of cream at the farm until it is too old and sour and then the carrying of the cream for long distances in the heat and sun so that a portion of it is past the stage at which fine butter can be made before it reaches the creamery at all, and it would be hard to suggest a better method of gathering the objectionable bacteria of a neighborhood.

No, Mr. Editor, there may probably be a solution but it is hardly in the introduction of the farm separator alone.

We want a lot more creamery butter made in Ontario, but we want it of desirable quality. If the time comes when Western Ontario is known to produce only this class of creamery butter we will need to look elsewhere than to England for a market, unless at low prices.

I. W. Steinhoff.

Stratford, Ont., April 9th, 1902.

Thomas Phosphate or Basic Slag.

IS IT REALLY OF ANY VALUE AS A GENERAL MANURE?

Editor THE FARMING WORLD

There appears to be a considerable amount of misunderstanding as to what Thomas Phosphate really is, and on what crops or soils it can be used to the best advantage. In consequence disappointment has been felt by those who through inadvertence have made an injudicious use of this valuable fertilizer, and it would therefore be to the advantage of agriculturists if a few facts were presented to them so as to assist them in forming a correct understanding regarding this manure. First, Thomas Phosphate or Basic Slag is not a complete manure. Second, Thomas Phosphate does not respond equally well on all soils. Third, the name Thomas Phosphate does not always imply a standard article.

Let us review these three principal points more closely. Thomas Phosphate is not a complete manure. That is to say of the four principal elements which all plants require to attain perfect growth, viz: Nitrogen, phosphoric acid potash and lime, it only contains two. These two however, viz: phosphoric acid and lime may be considered of primary importance because, they and especially phosphoric acid, are the first to disappear from the soil. The reason of this is that the Agriculturist from time immemorial has been in the habit of returning to the soil of his farm the natural manure obtained from his cattle. This whilst a complete manure and proportionately rich in nitrogen and potash contains but small quantities of phosphoric acid and lime on which the principal drain has been, as will be seen from the following composition of one ton of good average barnyard manure. Nitrogen 6 to 7 lbs., potash 4 to 6 lbs., phosphoric acid 3 to 5 lbs. By far the largest quantity of the phosphoric acid contained in the food of the animals being retained by them to build up and replenish their home, flesh and muscle, and also in the formation of milk.

Each ox carries away annually from the land about 25 lbs. phosphoric acid, each calf weighing 150 lbs. about 4 lbs., each sheep about 2 lbs., whilst the milk yielded by a cow removes about 12 lbs. phosphoric acid.

It has long been known in field practice that phosphates (or the combination of phosphoric acid with lime) play a most important part in the development of young plants. One of the greatest authorities on agriculture the late Dr. Aug. Voelcker, of London, Eng., consulting chemist to the Royal Agricultural Society of England, has called attention to the fact that the seeds of plants contain much phosphoric acid whilst soils usually contain but little. By placing phosphates within reach of young plants we are simply acting on a hint given "by nature in the care she takes to provide plants in their earliest periods of existence with a constituent which possesses so remarkable an effect in pushing on the young plants." Phosphoric acid is required for the building of each and every plant cell, and is necessary not only for the young plant but in every stage of its progress.

"Phosphoric acid is the backbone of the land and successful agriculture".

Second.—Thomas Phosphate does not respond equally well on all soils.

Because it has done well on A's land which is a heavy cold clay, it is no reason it will suit B whose soil may be a light loamy marl the difference very much depends upon the conditions of soil, one favouring the distribution of the fertilizer more than that of another. The utility of Thomas Phosphate is very much owing to its available phosphoric acid being insoluble in water and to its high content of lime, a considerable quantity being present in the state of free or caustic lime, rendering it an alkaline phosphate—the only one known in agriculture. This latter peculiarity renders Thomas Phosphate especially suitable for application to stiff clay soils, and clay loams which are not only poor in lime but "cold" and require mechanical treatment. Again on light sandy soils and sandy loams deficient in lime equally good results have been noted. Whilst on peaty, marshy, or swampy soils containing such an excessive quantity of vegetable or organic matter as to to be practically useless till they have undergone some years of mechanical treatment its effects are simply marvellous. The caustic lime which this fertilizer contains re-acts upon the organic matters in the soil promoting their nitrification, and giving to the effects of the Thomas Phosphate the same appearance as that which would result from the use of a nitrogenous manure.

Third.—The name Thomas Phosphate does not always imply a standard article i.e. of the same composition, but merely designates

the product of a certain manufacture. Being a by-product its composition varies considerably, the phosphoric acid ranging from 12 p.c. to 20 p.c. and the lime from 40 p.c. to 50 p.c. So long as this is properly understood no great harm is done, as the price should be in accordance with the quality. But it was found that unscrupulous dealers often substituted the lower grades at the higher prices to the detriment of the farmer, and on the recommendation of the Royal Agricultural Society of England, it was required that all sellers should guarantee the percentage of phosphoric acid and Fine meal. Thomas Phosphate or Basic Slag is therefore now classed and sold, much to the satisfaction of all reputable dealers and buyers as follows:—

High grade 38 p.c. to 45 p.c. phosphates equivalent to 17.50 to 21.00 p.c. phos. acid.

Second quality 35 p.c. to 40 p.c. phosphates equivalent to 16.00 to 18.25 p.c. phos. acid.

Third quality 30 p.c. to 35 p.c. phosphates equivalent to 13.00 to 16.00 p.c. phos. acid.

Its value depends entirely on the analysis and fineness of meal, which should be so finely ground that at least 80 per cent. passes through a sieve with 10,000 holes to the square inch.

From the foregoing the qualities of Thomas Phosphate should be better understood, and the fallacy will thus be seen of expecting it to take the place of barn-yard manure or a complete chemical manure except on certain soils and under certain conditions. If applied by itself the best results can only be expected on lands that have been continuously manured with barn-yard manure, and on damp, peaty or swampy soils with excess of organic or vegetable matter for the reasons already indicated. On light sandy soils or loams deficient in lime crops will respond well to it but still better if it is applied together with barn-yard manure to supply the needful potash and Nitrogen. Indeed the advantage of this fertilizer is that the farmer is enabled to make his barn-yard manure cover a much larger area by re-inforcing it with Thomas Phosphate, and at the same time getting a far superior and more complete manure on his land, than the barn-yard manure is by itself.

G. Campbell Arnott,
Ph.D., F.C.S.and E.,
Member Royal Agricultural Society of England.

Toronto, April 8th, 1902.

"Euphorimetry."

This is a pretty big word to have at the head of an article in an every-day farmers' paper. And yet it is worth looking into, as it indicates somewhat of the importance that is beginning to be attached to agriculture in scientific circles. The word is the name of a new science for farmers that has lately been given to the public by M. Lucien Comet, a member of the French Chamber of Deputies. It has to do with the relations between soil fertility and production, and is being reduced to mathematical exactness as far as possible. There has been some difficulty in arriving at exact figures on this point and to get a type of comparison or scale of measurement. To establish a unit of fertility, one experimenter divided a field into four parts. One part received no fertilization, while the others received respectively 10, 20 and 30 loads of manure. The whole field was sown to wheat and the product gave the increased crop due to each wagon-load of manure. He called the effect produced by 1,000 kilograms (2,200 pounds) of fertilizer on a hectare (2.47 acres) of land one degree of fertility, and thus constructed a "euphorimetric scale." One degree of this scale, according to the experiments means the production of 35 litres (about 1 bushel) of wheat, 58 litres (about 1⅔ bushels) of oats, etc. From this scale, it is claimed by this experiment to be easy to determine from the degree of fertility of a soil what quantity of a given cereal it will produce per acre, and conversely to find the fertility when the crop is measured.

These figures give some idea of what these French scientists are driving at. Even if their deductions are correct, it will likely be sometime before this new science is of much practical value to the average farmer. Whether this scale will work out as well amid changing seasons and variations in temperature remains to be seen. The whole thing is interesting, however, as showing the tendency of the age and the rapid rate at which the farmers' calling is advancing to a position of prominence in the scientific world.

A Good Ration.

Speaking at an Institute meeting on feeding dairy cows, Mr. D. Drummond said: "We used to be told that if we fed silage the cows' teeth would drop out and our animals would be subject to all kinds of diseases. This has been lived down, however, and to-day there is no better ration for the dairy cow than 30 to 35 lbs. of good silage, 41 lbs. ground peas and oats, and 4 lbs. bran. If to this you can add about 4 lbs. of clover hay you may expect the very best results. "We feed only twice a day," said Mr. Drummond, "and I think with the best results. It is less trouble and the cows are left undisturbed during a long period and the experience of those who have tried it is such that they would not think of going back to feeding three times a day. The watering should be done very frequently. In fact cows should have water before them at all times, for when we consider that milk is 87½ p.c. water, and that the great bulk of the food which the cow eat must be changed into a solution before digestion, we begin to realize the vast quantities of water which a good dairy cow in full flow of milk will consume."

Separator Skimmed Milk as a Food for Pigs.

For several years Cornell University Experiment Station has been conducting a series of experiments dealing with the value of skim milk as a food for pigs. Though corn was used as the solid part of the ration the results bear out the conclusion obtained at the Agricultural College, Guelph, and the Experimental Farm, Ottawa, where other grains were used. The results are summarized in a recent bulletin as follows:

In 1897 one pound increase in live weight of pigs was made with 1.7 pounds of corn meal and 4.8 pounds of skimmed milk. This was the most economical gain for the year.

In feeding potatoes to pigs during the winter, warm dry quarters should be furnished, otherwise the potatoes whether cooked or uncooked may do more harm than good.

In 1898 the most economical gain was made with corn meal and skimmed milk when the proportion by weight of corn meal to skimmed milk was about 1.3. Bone meal did not produce any apparent results.

In 1899 the variations in individuals were greater than the variations in the different lots. The greatest gains were made by the smaller pigs.

The most economic gains in 1899 were made when corn meal and skimmed milk were fed in the proportion of one pound of corn meal to 6.7 pounds of milk. One pound increase in live weight was made with 1.5 pounds of corn meal and 10.4 pounds of skimmed milk.

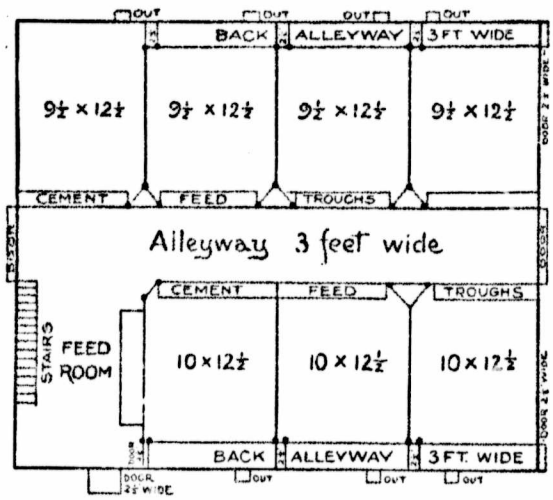
Molasses from Beet Sugar Factory was very unsatisfactory.

In 1900 most economical results were obtained when one pound of corn meal was fed with 2.5 pounds of milk. The amount of food required for one pound gain in live weight was 2.6 pounds of corn meal and 6.8 pounds of skimmed milk. Bone meal seemed to produce beneficial results.

In 1901 the pigs were overfed before the experiment began. Extreme care must be exercised in feeding skimmed milk to young pigs that the amount fed is not too great. They should only be fed what they will consume quickly.

Most economic results were secured in 1901 where one pound of corn meal was fed with six pounds of skimmed milk and in addition a small quantity of bone meal. It required 2.2 pounds of corn meal and 13.3 pounds of skimmed milk to produce a pound of gain live weight.

As a result of five years' work it is found that most economic returns are secured with skimmed milk when corn meal is the grain used. The proportion of corn meal to skimmed milk may be varied without apparently affecting results. In no case should the amount of skimmed milk fed be greater than the pigs can quickly and easily consume.



Building a Cement Hog Pen

In response to an enquiry which appeared in The Farming World a few weeks ago, Mr. John A. Daniels, Southcote, Ancaster, Ont., sends us the accompanying plan and description of a cement hog pen built by him four years ago. He claims this to be the best and handiest of any pen he has yet seen. He describes the construction of the pen in detail as follows:

"It is cement all through, floors, troughs and all. In laying the floor, make it at least six inches higher than the ground at the highest point, then fill up with earth and broken stone before laying the cement floor, keeping the floor about two inches at the back alley. Also set 3x4-inch posts in front by the troughs as marked in the plan, for the doors opening into the front alley, which are convenient for getting into the pens from the front. We put a ¾-inch bolt, 6 inches long, in the cement floor where the scantling are placed for the doors and petitions. The small front doors are 1½ feet wide and only shorten the troughs about 11 inches. We put all the stones in the wall we could, keeping the cement well packed on the outside.

"We did all the work ourselves, but I have included $75 for carpenter work, windows and sash. I also added 1,000 feet of common inch lumber for floor overhead and 200 feet of inch flooring for doors, in all the cost being $300. We have two windows on each side and two above and two below in each end.

"The following is a detailed statement of the material used and the cost:

	Feet.
2 plates 6x6x40	240
2 plates 6x6x30	180
2 beams 6x6x30	180
8 posts 6x6x8	192
30 joists 2x8x15	600
28 rafters 2x6x20	560
24 scantling 3x4x8	192
15 scantling 2x4x12	120
1x12 elm for front swing doors	200
2x12 hemlock for petitions	1000
½ inch siding for gables . . .	500
Common inch lumber for flooring	1500
	5464

7,804 ft. of lumber at $15	$117 16
32 bunches of shingles at $1.25	40 00
50 bbls. of cement at $1 ..	50 00
Carpenter work and windows	75 00
	$282 16"

Note.—There appears to be some discrepancy between Mr. Daniel's detailed statement of the total lumber used and the total paid for at $15 per thousand feet. Some items are perhaps omitted. The description throughout is, however, very explicit, and will give a good idea of how to build a cement pig pen.—Editor.

Selecting Brood Sows.

The majority of our farmers mate their sows so as to have spring litters. However, as was shown in these columns last fall, there is nothing to prevent a farmer from raising fall litters. In fact, many successful farmers follow the practice of having litters at any time so as to have a supply of hogs for marketing regularly during the year. Whether the litters come early or late, in the fall or in the spring, some attention should be given to the selection of the breeding sow. Many a farmer will pay special attention to the selection of his brood mare, his dairy or beef cow and his breeding ewes, but will accept any old thing as a brood sow. No greater mistake could be made. No breeding animal on the farm will, if managed properly, return as much cash to the farmer as the brood sow. In Canada she should be selected with a view to producing hogs suitable for making export bacon. Generally speaking, such a sow should have great length and depth, good top and bottom lines. The brood sow should also be a good representation of the breed to which she belongs.

In a recent issue of Wallace's Farmer some valuable information on the selection of a brood sow is given from which we take the following:

"Second, the first-class brood sow is a careful mother. She should not be nervous, fidgety or hysterical over her pigs, nor on the other hand without natural affection and indifferent to her progeny.

"Third, the first-class brood sow is a good suckler. We suspect there is just about as much difference between the milking qualities of brood sows as of cows; possibly also as much difference in the per cent. of fat in the milk. This is largely guesswork, because it is not easy to get sow's milk for use in the test and the amount must largely be an unknown quantity for obvious reasons. Still we do not see why a like law should not prevail in the breeding pen as in the cow stable, and it is safe to act on that supposition. It is not difficult to ascertain what sows are good milkers and what sows are not. All you have to do is to see what sows carry along large litters and keep them growing all the time. Every effort should be made to increase the milking qualities of the brood sow kept for use next year.

"Fourth, the brood sow is good for from eight to twelve pigs at each litter. If one brood sow can carry through ten pigs as well as two ordinary sows, then she is worth twice as much plus the cost of feeding and sheltering the supernumerary one. If a sow that will raise five pigs well is worth twenty dollars, a sow that will raise ten well is easily worth sixty dollars. Whether you are to have a sixty-dollar or a twenty-dollar brood sow in your pens depends upon how closely you observe the milking qualities of your sows; for a good milker is always a prolific breeder; and conversely, a shy breeder, whether in hogs or cattle, is nearly always a poor milker. Nature seems to calculate ahead how many pigs the sow can support. This much of a start, to say nothing of breeding from untried brood sows, is a very important matter when there is reason to expect that pork will be on the decline when the late pigs are ready for the market."

About Hog Cholera.

That veteran hog raiser, Theodore Louis, in writing to the National Stockman and Farmer, says:

"Wishing won't prevent hog cholera, but united action in measures of sanitary conditions, with

a will and energy to carry them out, will do it. What hog raiser would permit his hogs to wallow in streams when hog cholera abounds above? What hog raiser would visit neighboring infected herds and return to his own herd with infected boots, to see if they act like them? If one man can and does carry on his boots and clothing weed seeds visible to the eye from one field to another, what an easy matter it would be to carry hog cholera germs, when a square inch of infected matter will contain thousands of germs. Who would return from stock yards with wagon and self and drive into his hog yard on return? Who would buy hogs out of a stock car and introduce them among his own herd before quarantining them in a seperate enclosure? Stock cars are a source of infection because they are not disinfected. Will not some one throw dead, diseased hog carcasses into streams to save burying or burning them or putting them out of reach of dogs or whatever will eat them and carry infectious matter? How many fail to burn infected straw piles that serve as shelter in time of disease, or clean out yards and plow under manure, where no hogs have access for a season. Do not the majority of farmers know that hog cholera germs will retain their infectious power and live from one to three months under favorable conditions? If not, why not? Because of failing to read information that can be had almost as a gift. Are not these few thoughts and observations some of the leading links in the progress and continuation of the dread disease?

"Take six to eight bushels of charcoal broken, put them on floor or in large box, add 1½ bushels of wood ashes (hard wood if possible), 8 pounds of salt, and mix it. Then have 1¼ pounds of copperas and dissolve in a large pail of hot water and sprinkle this on the above with a sprinkling pot, but be sure to mix as you sprinkle, so as to have it evenly distributed.

"It won't cure hog cholera, but the rate hogs will eat it at times will convince any observer that it supplies a want that they cannot obtain in yards or fields, as their general health will indicate."

The Value of Sweet Clover.

In a Press Bulletin of date March 24th, just issued by the Ohio Agricultural Experiment Station some valuable information is given regarding wild sweet clover (otherwise known as Bokheara clover or mililot). The volunter growth of this clover is almost entirely confined to roadsides where the surface soil has been scraped away or where the ground has been puddled by trampling and similar locations. It is practically never found invading pastures or other lands which have been kept in good condition. Experiments have shown that where this clover has been sown on out of condition soil and plowed under it has greatly improved the following crop. As a restorative crop for yellow loam and white limed lands this plant has no superior and for black prairie soils no equal.

The appearance of sweet clover is a signal that the soil is out of condition. Its mission seems to be to occupy the waste places and neglected spots of the earth and to prepare them for the growth of other plants.

Animals do not eat sweet clover readily, but when confined to it they are said to soon learn to relish it, and it is largely grown for forage and hay in the southern states. It resembles alfalfa in appearance and habits of growth, and like alfalfa must be cut before full blossoming if it is desired to make hay of it, otherwise the stems become hard and woody. Like alfalfa it will furnish two or three crops of hay in a season; but it differs from alfalfa in being a biennial plant, so that it will disappear at the end of the second season after seeding unless permitted to re-seed itself.

Some Hints on Rural Sanitation

By Dr. E. G. Gowans, Utah Agricultural College.

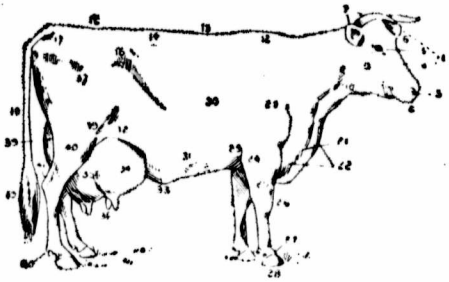
Among the many sources of danger to the health of those who live in rural districts may be mentioned the following: Damp cellars, refuse from the kitchen, improperly cared-for closets and vaults, and impure drinking water, particularly that obtained from polluted wells. Among the many diseases which can be traced either directly or indirectly to the unsanitary conditions in and around dwelling houses, are: Rheumatism, bronchitis, consumption, diphtheria, tonsillitis, dysentery, various forms of diarrhoea, croup, typhoid and other fevers, besides a long list of minor ailments. In view of these facts, therefore, it should be the duty of everyone upon whom rests any responsibility in this matter to do all that is possible to remove the sanitary defects of dwelling houses, that those living within them shall be protected as far as may be from the ravages of disease.

In many instances the cellar consists of an excavation either under a part of the dwelling house or near it, and is a mere hole in the ground, with probably the walls rocked up loosely and floor, constantly damp from seepage from the surrounding area, and containing decaying vegetables, etc. If there be a cellar at all it should be constructed in such a way that it can easily be kept clean and dry. The walls and floor should be laid in cement. The windows should be large enough to admit an abundance of sunlight. The added expense of constructing a celler upon this plan would be trivial as compared with the security and protection to health which it would afford.

It is quite a common practice to throw a great amount and varied assortment of kitchen refuse out into the back yard. This practice proves a menace to health in at least two ways. In the first place the decaying organic matter creates a favorable medium for the growth and development of disease germs; and the large amount of water which is usually thrown on the same surface finds its way finally to the well laden with the toxic products of putrifaction and decay. Such of this refuse material as is suitable for food for hogs or poultry should be reserved for that purpose and the remainder should be disposed of in a way to be suggested later.

The ordinary closet vault found in most rural districts throughout the country consists of a rough wooden structure with a hole dug in the ground behind it of variable dimensions, to receive the excreta. To avoid the necessity of frequent cleaning, this excavation is sometimes of considerable depth. Of such closets it can be said that they are a constant source of nuisance and terrible menace to health. The only really sanitary system of closets suitable for rural districts and small towns and villages where there is no sewage system, is the pail system. This system is one in which the removal of sewage is accomplished by means of moveable receptacles which are used to receive the excreta. The construction of such a closet is simple, and can be put into effective use anywhere. The essentials are: floor to be several inches above the ground level; floor and walls to a height of nine inches to be of cement, ashphalt, or other nonsorbent, impermeable material; seat hinged to allow the contents to be removed; a good-sized metal-lined box to receive ashes and kitchen refuse; two galvenized iron pails of about eight gallons capacity. Dry earth may be used as a deodorant and absorbent instead of the ashes if preferred. The pails should be round to facilitate cleaning. As one pail is removed the other previously cleansed is put in its place. As circumstances require, the pails are carted away, and their contents used as a fertilizer on the land.

By carrying out a system of this kind the closet does not become a nuisance, nor even offensive, the kitchen refuse, which cannot be otherwise utilized is properly disposed of, the well is protected from pollution, and a very grave risk to health is removed. The general adoption by the people of the country of such a system would mean an immense decrease in the mortality from contagious and infectious diseases, and save the lives of hundreds of our people annually.



Judging the Dairy Cow

We publish herewith a diagram showing the points of a dairy cow. This model is taken from the Year Book of the United States Department of Agriculture, and has been prepared by an expert. The numbers on the plan correspond as follows :

1 head, 2 muzzle, 3 nostril, 4 face, 5 eye, 6 forehead, 7 head, 8 ear, 9 cheek, 10 throat, 11 neck, 12 withers, 13 back, 14 loin, 15 hip-bone, 16 pelvic arch, 17 rump, 18 tail, 19 switch, 20 chest, 21 brisket, 22 dewlap, 23 shoulder, 24 elbow, 25 forearm, 26 knee, 27 ankle, 28 hoof, 29 heart girth, 30 side or barrel, 31 belly, 32 flank, 33 milk vein, 34 fore-udder, 35 hind udder, 36 teats, 37 upper thigh, 38 stifle, 39 twist, 40 leg or gaskin, 41 hock, 42 shank, 43 dew claw.

While all dairy authorities agree as to the more prominent points of a dairy cow, there is some difference of opinion as to the relative importance of some of the minor points. The following is a list, prepared by the expert referred to above, of general qualities and particular parts considered, with the figures indicating the "weight" or importance attached to each in making up the total of 100 points, which stands for perfection :—

GENERAL APPEARANCE.

Constitutional vigor, as shown by size, apparent health, strength, activity, and "general appearance," 5.

Form, wedge-shaped, as viewed from front, side and top, 5.

Quality — Hair, fine, soft ; skin, medium thickness, loose, mellow, and unctuous, with yellow secretion, 5.

Temperament—Active and nervous, but not wild ; indicated by movements, eyes, and lean appearance, 5.

HEAD AND NECK

Forehead—Broad and full, 2.

Horns—Small and fine, not too long, set well apart, 1.

Eyes—Large, prominent, bright, and yet placid, 1.

Face — Lean, not too short, straight, or slightly dished, 1.

Muzzle—Clean and strong, mouth and nostrils large, 1.

Ears—Medium size, fine in texture, yellow secretion abundant, 1.

Neck—Rather long and thin, fine, clear throat, and light dewlap, 1.

FORE QUARTERS.

Chest and Brisket—Broad and strong, low, but not too fleshy, 3.

Withers—Well defined, firm and lean, 1.

Shoulders—Light, not fleshy and oblique, 1.

Legs—Straight, rather short, and not too large or coarse, 3.

BODY

Back—Well defined, lean, open jointed, not too level, and smooth; a good spine, 3

Barrel or Body—Long and large; ribs broad, well arched, open, and well defined ; a large, strong body, 8.

Heart Girth—Large and deep, abundant room for active heart and lungs, 4.

Belly—Large, broad, and deep, with a large and strong navel, 6.

Loin—Broad and strong, 3.

HINDQUARTERS.

Hips—Wide apart, 2.

Pelvic Arch — Prominent and strong, 3.

Tail—Long, fine, with a good switch, 1.

Rump—Long and wide, 2.

Thighs—Long and lean, no beefiness, thin flanks, 3.

Legs—Straight, rather short, wide apart, giving open twist, and not too large or coarse, 3.

Fore-udder—Full, broad, and extending well forward, not fleshy, 8.

Hind-udder—Full, broad, and attached, high, not fleshy, 8.

Teats—Of good size and form, evenly placed, 5.

Milk Veins—Upon the udder and in front of it, prominent, large, and tortuous, leading to large, open milk wells, 5.

An Irishman was sitting in front of his house a few days ago pulling frantically at his pipe. He lighted a match, and pulled and pulled, threw the match away, and then lighted another. He continued the performance until the ground was strewn with burnt matches. "Come in to dinner, Pat," said his wife. "Faith, and I will in a minute, Biddy," said he. "Moike was telling me to-day that if Oi shmoked a piece of glass Oi'd see an eclipse av the sun. Oi dun know whether Moike's been foolin' me or whether O'ive got the wrong kind of glass." —Exchange.

Beef and Butter and How We Get Them

BY M. E. GRAHAM, AILSA CRAIG.

In spite of the fact that test after test proves the Shorthorn to be of special value as a dairy cow the breeders of special dairy stock and professors in dairying still claim that we cannot have a dual purpose cow, or that we cannot combine beef and butter, and that a dairy cow must have a certain peculiar form which does not much resemble the type of a good beef cow. But they forget that there are scores of these beef types which are also good dairy animals and that it might be safe to modify the picture that has been set up as the only dairy form.

Butter and beef can be combined; to prove this let us look again at some of the figures of the recent dairy test to be found in The Farming World, Jan. 7th, page 763. We find there the list of total points headed by a grade cow 127.42, followed by a Holstein, 125.20 and almost equals an Ayrshire, 113.44 and a Shorthorn 113.16. Let us follow the list more

Belvedere Lily IV —35576—.

closely and add the total points made by the cows winning the first, second and third prizes in each of the three classes, we find the three Shorthorns give a total of 335.30, Ayrshires 329.30, and Holsteins 294.12 points, thus showing a better average score for the beef and butter cow than is made by the distinctly dairy cow. Again in looking over the percentages of butter fat we find none of the special dairy cows reach even five per cent. of butter fat while a Shorthorn Belvedere Lily IV—35576—whose picture is shown gave a percentage of 5.6.

I am saying nothing against any special breed of cattle but wish further to emphasize the fact that beef and butter can be combined. In our own herd of which Belvedere Lily IV. is but one and where we do not do any special feeding for milk, we have no trouble in getting from six to twelve thousand pounds of milk per cow in a year of ten months and the cow that gives the most milk is frequently the one most easily put into beef condition If Shorthorn breeders took as much pains in their efforts to raise calves that would in time make a good showing at the pail as do our brothers in the dairy stables they need never be below the others in the dairy tests.

Belvedere Lily IV—35576—was calved Aug. 13, 1898 and being a heifer, was not allowed to suck her dam but was fed from a pail getting at each meal or twice a day, about one quart of new milk which quality was gradually increased, skim milk being added when two weeks old, until when one month old it was getting from three to three and a half quarts of skim milk which was always fed warm. By the time she was 4 weeks old, she was beginning to relish clover hay and meal (mixed peas and oats).

This food was continued, with the exception of the milk which was dropped when the calf was between four and five months, all winter and a few pulped roots were given mixed with the meal. The exact quantity cannot be stated as she was penned with a bull calf. When spring came she was turned out to pasture with the other stock and her summer food has always consisted of pasture only. During the winter she was fed corn ensilage, mixed with cut oat straw and pulped roots morning and evening with clover hay at noon.

During the winter of 1900 her food was similar in quality and until the century dawn when she took her place with the milk cows, her first calf coming in the early hours of Jan. 1st, 1901. Her calf was not allowed to suck as we wished the dam to be a success in the dairy. She was milked twice a day from Jan. 1st until Oct. 1st, when she was put dry in order to prepare for her second period of lactation which began Nov. 20th, 1901. Almost too short a period before the winter show for any forcing to be done to have her make an exceptional showing there, although she won first prize in the heifer class. For the 1st eight days her food consisted of clover hay with drinking water slightly warmed, after that her food was gradually varied by bran and mangels, and during the test she was fed also a little pea meal and a little oat meal and ensilage. The exact quantity cannot be given as it was neither weighed nor measured. Her second calf was allowed to suck another cow which had already raised one calf from May 28th, 1901, besides giving a generous supply of milk for the house. As this cow will again begin to give milk in May the young calf has also been taken from her and is being fed about two quarts of new milk twice a day also a little meal and hay. The cow was then giving twenty pounds of milk a day but ere this appears will probably be dry. We always try to have them dry about two months. We have now two heifer calves from Belvedere Lily IV., which we hope will make a good showing both in the beef and dairy classes.

Clipping Horses

The practice of clipping horses before beginning work in the spring is becoming more common in many parts of the country. The practice has many advantages, not only for the horse but for the fellow who looks after him. The Horse Review, in a recent issue, sums up the advantages of clipping as follows:

"A clipped horse is less liable to take cold than a long coated horse, because the evaporation of perspiration is much more rapid. A "hot" horse will cool out quicker with a short coat. Every groom is aware of this fact. A clipped horse requires less fuel (food) to maintain bodily heat than the long-coated horse; therefore, clipping as a matter of economy should be generally practised.

"A clipped horse looks cleaner, acts more sprightly, and keeps in better health. Horses intended for the sale or show-ring should be clipped at least two weeks before the event. There will be a marked improvement in weight and appearance, with manifest advantage to the owner's pocket-book."

A Trio of Buff Orpingtons imported by J. W. Clark, Onondaga, Ont.

The Buff Orpingtons as a General Utility Fowl

By J. W. Clark, Onondaga, Brant County, Ont.

The Buff Orpington fowl, though of comparatively recent introduction, has attained a position in the English show pens which would indicate that it is likely to continue to be a general favorite as an all round utility bird. It possesses a combination of the desirable characteristics of three distinct English breeds.

The object of William Cook, of Orpington House, England, who is the originator of the breed, was to produce a distinct type or strain of birds that would combine the good qualities of some of the breeds that are well known to be good egg producers and table fowls. In this he was most successful as to-day the Buff Orpington is generally acknowledged to be the best general purpose bird in England. They are especially suited to the requirements of the English markets, and, as a money-earning breed, they lead all others.

Being connected with a company that has from time to time been forwarding poultry to the English market, I have had occasion to communicate with some of the leading dealers in dressed poultry in Great Britain, and have noted that special mention has frequently been made of the merits of this breed. They find the greatest demand for a white-fleshed bird having white legs and which will weigh from three to four pounds dressed, when five months old. The color of the flesh or legs will frequently make a difference of one or two cents per pound. Such points do not generally appeal to Canadian poultry raisers, but if we intend to continue to build up a trade in high class dressed poultry with John Bull we must place before him just what suits his eye, while constantly remembering that, however much he may love us, pure sentiment will not induce him to violate his stomach. Our attention has repeatedly been called to the ideal type of bird for the export trade. We have been supplying too great a mixture, and unless we can succeed in improving our stock with a view to curtailing those vexatious variations and supply what the English market demands we cannot expect to get the highest prices.

During the last three months I have visited the poultry departments at the Ontario Agricultural College, Guelph, and at the Central Experimental Farm, Ottawa, and found that the Buff Orpingtons were making an excellent record as winter layers. W. R. Graham, superintendent poultry department, Guelph, had a pen which were all laying on the 15th of January. An April pullet usually commences to lay in October or November, and with proper care will continue to produce eggs throughout the winter and spring.

COMMENTS FROM SOME EXPORTERS OF DRESSED POULTRY.

Dr. Boultbee, manager Canadian Produce Co., Toronto, says: "The Buff Orpington is worth all the other breeds put together for the export trade."

Jas. Ruddin, game merchant, Liverpool, says: "For the English trade in dressed poultry the Buff Orpington is the best breed."

C. F. Hodges, manager Farmers' Packing Co., Brantford, says: "From our experience in shipping dressed poultry to Great Britain, and from what we have seen of this breed, we can, with confidence, recommend our farmers to get into the way of raising Buff Orpingtons as quickly as possible as it will greatly help our export trade."

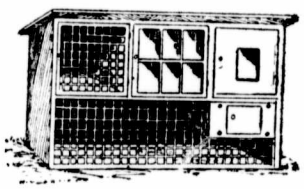
Mr. Courtnay, of the firm of J. & W. J. Courtnay, London, England, says: "The Buff Orpington meets with greater favor in the markets of England than any other class of poultry."

They are exceptionally hardy. During the past winter I have imported four crates of birds, which I purchased from one of the best flocks of Buff Orpingtons in England, at a cost of $50.00 per trio. They landed in the early part of March in the very best of condition. After being confined in the crates for seventeen days and crossing the Atlantic in the roughest part of the year, they were healthy and bright, a number of the pullets were laying, and they have never required nursing a single day since they landed.

Their general characteristics may be summed up as follows: They are hardy, quite domestic in habit, mature early, are excellent egg producers, their body is of the proper size and conformation, they have a fine grained flesh, and they are well suited to our Canadian climate.

A Two Story Brooder.

The accompanying cut from an American exchange shows a new style of brooder that might be useful. It is built out of doors and is two stories high. One is for the very young chicks, where the greatest heat will be had. The lamp, or brooder stove, is located in a compartment directly beneath this. The next compartment, opening out of the first, is a sunny scratching room, the front being a glass door. The next in order is an apartment with wire netting only in front, where the chicks can get their first taste of outdoor air.



As the chicks get older they can be allowed to go down to the ground beneath by an inclined run. With such an arrangement the chicks can reach any kind of temperature desired, so they need not be overheated, nor underheated. Such a brooder, being up from the ground, is much easier to care for than the ordinary kind. To build it, four corner posts can be driven into the ground, or it can be made with a frame, so as to be moved about from place to place. An excellent size is 9 feet long and 3 feet wide.

Warm or Cold Water for Cows.

According to experiments recently reported, the temperature of the water given to cows has a great influence on the quantity of the milk. The trials were made in Germany, and the following results were noted:—

1. With warm water the daily quantity of milk given is increased at least one pound per cow as com-

pared with cows drinking cold water.

2. The cows drank on an average 73 lbs. of warm water, as against 63 lbs. of cold.

3. The cows drinking warm water ate three-quarters of a pound more food daily.

4. The cows drinking warm water consumed 1.44 lbs. of dry food for each pound of milk. Those drinking cold water consumed 1.54 lbs.

The increase in the quantity of water was accompanied by an increase of the aquous part of the milk without increasing the solid part.—The Dairy.

Killing Weeds in Pastures.

In a Press Bulletin, just issued by the Kansas Experiment Station, the following methods are given for the eradication of weeds in pastures:

"Eradication of weeds already present in pastures depends on the particular case. Annual weeds can be killed out by mowing before seeding. This may have to be repeated several times during the growing season, as many of them will send up new sprouts. In the case of biennials or perennials with tap-roots, cutting the latter under ground and beneath the "crown" is effective. Perennials like the bind-weed, which spread by underground stems, are extremely difficult to deal with because every bud on such a stem is capable of growing into a new plant. Plowing under simply spreads the plant by cutting the propagating stems and scattering the pieces. No very satisfactory way of eradicating weeds of this kind can be given that will apply for all cases and conditions. A straw mulch, by excluding the light will sometimes kill them. Common salt applied to the soil is effective, and arsenite of soda, one pound dissolved in eight quarts of cold water, is recommended. This can be obtained of wholesale druggists at ten cents per pound. Of course, any chemicals that will kill weeds will kill all the other vegetation for several months. Chemical methods of weed extermination, then, should be used only as a last resort and under expert advice."

Maintaining Soil Fertility.

Mr. F. W. Hodson, Dominion Live Stock Commissioner, writes: "I believe our greatest loss of fertility is the loss of humus. A soil without humus will not carry a crop successfully through a drouth. A clay soil, devoid of humus, will be lumpy and hard, and will not retain moisture for very long. We all know the effect on the crop, and the great amount of labor required to prepare such a piece of ground for a crop. Hence, our aim should be to farm so as to produce and leave as much humus in the ground as possible. This is best accomplished by a rotation of crops, and one crop in the rotation should be clover, which is our greatest soil renovator. We should aim to feed everything, or nearly everything produced on the farm, and if we add a little bran or concentrated feed to the ration of each animal, and carefully save and apply all the manure, it is easy to see that we shall maintain, and probably add, to the fertility of the soil.

Many advocate the plowing under of green crops, but unless a farm is very much run down, I would not practise this, unless it be to bury a second crop of clover, or a clover crop sowed to protect the ground during the winter. A cover crop should always be sowed whenever a piece of ground remains idle during the fall and winter. Many times we have a piece of stubble which we intend to plant to corn or potatoes. On this we can grow a crop of rye or peas and barley, either of which will make a large growth and can be plowed under in time to plant to corn. This adds largely to the humus of the soil, and will tend to carry the crop through a drouth without injury.

As I said, it should be our aim to feed all, or nearly all we raise on our farms for the purpose of keeping up the fertility of the farm, and I believe it to be more profitable to sell our produce in the form of butter, beef, pork, etc., than to sell it in the rough. I believe our produce fed to good stock, will bring us more than twice what it will sell for on the market. For example, I can feed a cow for 12½ cents per day, and have her bring in 25 cents per day or more, for butter alone, and I believe the same to be true with all other kinds of stock.

Many advocate the use of commercial fertilizers. Of couree the basis of all our fertility is the amount of nitrogen, potash and phosphoric acid a soil contains. When we consider that an ordinary crop of wheat of 25 bushels per acre, removed about $8.75 worth of these elements from the soil, and a crop of corn nearly as much, we can readily see that when a soil is exhausted of these elements, it is quite expensive to replace them by using commercial fertilizers. Now if we feed our crops on the farm, we can return about 80 per cent. of these elements to the soil in the manure, and at the same time get twice the market value of our produce. We can readily see that it is more profitable to farm so as to improve the soil, than to sell our crops on the market, and at the same time be losing heavily in the fertility of the soil.

I would not advocate the feeding of wheat, but would sell it and purchase bran or cottonseed meal, which is worth more for feed than wheat, and has about double the manurial value. If I sold much wheat, I would use commercial fertilizers freely, for it is impossible to keep up the farm, and sell grain without their use. If we grow all the forage crops we can and feed them on the farm, carefully save and return manure, we need have but little fear about the fertility of the land.

"Say, I told that Boston man my fish story, and all he said was 'Kindly alight.' What did he mean?"

"Oh that's just his way of saying 'come off.' "—Philadelphia Press.

Pat (timidly)—"Biddy, did ye ever think av marryin'?" Biddy (demurely)—"Sure, now, th' subject has niver intered me thoughts." Pat (turning away)—"It's sorry Oi am." Biddy (softly—"Wan minute, Pat. Ye've set me a thinkin'."

Doctor.—"Well, Mrs. Hodge, has your husband followed my instructions and eaten planty of animal food?" Farmer's wife—"Well doctor, I 'ardly know. You see it's like this. 'E got on all right with the turnips an' oats, an' 'e et a bit o' barley, but w'en it come to the 'ay I couldn't mak' 'im tackle it."

The Sugar Beet World

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

Edited by JAMES FOWLER

No Export Bounty.

The following is the text of the Brussels convention on the sugar bounty question.

Article 10.—The articles of this convention shall take effect from September 1, 1903, and shall be in force for five years from that date, and will continue in force during one year thereafter, and so on for terms of five years in case no state denounces the convention twelve months before the expiration of the five year period.

Article 11.—The provisions of the convention shall apply to the provinces and colonies beyond the seas and foreign possessions of the high contracting parties. There are excepted, however, the colonies and possessions of Great Britain and the Netherlands save in what is set forth according to the provisions of Articles 5 and 8.

Article 12.—His convention shall be ratified at Brussels on February 1, 1903.

Final proctal, considered as forming part of the convention, added to Article 11.—The governments of Great Britain and the Netherlands declare that no bounty direct or indirect shall be accorded to sugars of their colonies during the existence of the convention, and that no preference shall be given in their respective countries to colonial sugars as against foreign sugars.

The Sugar Bounties.

The Immediate Effect on British Refineries.

(Special to the Pall Mall Gazette.)

Of what little sugar refining business is left to this country, Liverpool is now at the head. There are eight refineries of any importance in Britain; Liverpool has four, and London and Greenock have two each—a pathetic remnant on a great trade. One of the chief authorities in the sugar industry in Liverpool is Mr. Sigmund Stein, and with him a Pall Mall Gazette correspondent has had a brief interview as to the effect of the agreement signed at Brussels.

"The immediate effect," said Mr. Stein, "will be disastrous. The bounties are not to be abolished till September, 1903. Now, what will happen in the meantime is that this country will be swamped with bounty-fed sugar. At present there is a surplus stock on the continent estimated at 1,200,000 tons. All this, and the sugar produced between now and September 1, 1903, will be thrown on to the English market. During the present year one can calculate that the foreign refiner will import into Great Britain 200,000 tons above the actual rate of consumption, and as much more as he can manage to manufacture. During the next few weeks you will certainly see the imports mount up to four and five times the average amount. The cheap money is in favor of the foreign importer, for he will have no difficulty about keeping the sugar in store on this side. We have heard a good deal about the beet growers reducing their sowings but we shall hear no more of it now until the bounties are abolished in fact, and not merely in principle. For the next crop, on the contrary, the sowing will be increased, and no one can blame the beet growers for it.

"In fixing so long a period," said Mr. Stein, "before the bounties are abolished, I think, looking at it from the point of view of the British refiner, a great mistake has been made. It practically means that neither for us nor for the West Indian will there be any trade whatever for eighteen months, and I should not be surprised if for eight or nine of these months the English refiner will have to close his factories. The loss that means you can easily realize.

FUTURE PROSPERITY PREDICTED.

"But when the storm is over," Mr. Stein went on, "I look for a period of prosperity for the British refiner and the West Indian. Factories will soon begin to open again; in fact, I have heard of preparations in that direction already. Britain is the greatest sugar producer. Then I look to see a new field opened for the agriculturist in the way of beet growing. In the past the farmer has had no encouragement to grow beets, for it could not by any means pay him. The experiments I have made over a considerable period now show that beets can be grown with success in this country. There is plenty of room for the West Indian planter and the beet grower at home, for the consumption is always on the increase. Altogether when the present interruption has passed, I hope to see a return of great prosperity to the British refiner."

Cane and Beet Sugar.

By H. W. Wiley, Ph. D., Chief of the Bureau of Chemistry of the U. S. Department of Agriculture.

Two great sources of sugar now supply the world with the chief part of the sugar consumed. These 2 are the sugar cane and the sugar beet. The minor sources of supply are of so little commercial importance as to demand very little attention. Among these may be mentioned the maple tree, the sorghum plant and the sugar palm as the principal. To these must be added the sugars manufactured from starch, and which are known under the common name of glucose in this country. These play a somewhat important rôle in certain forms of foods, such as confections, and are used chiefly for this purpose and as an adjunct of malt in brewing. In so far as the origin of the article is concerned, however, the whole subject of sugar, both in its relation to food and in its fiscal aspects, may be confined to the two sources first named.

The sugar cane is indigenous in and, according to the best botanical authorities, it was first found growing along the north coast of the Indian Sea, from the mouths of the Ganges to the foothills of the Himalaya Mountains.

The sugar beet, according to the best botanical authorities, is indigenous to the eastern shores of the Mediterranean, where it was originally an annual plant, maturing its seed during the first year of growth.

The widest difference is noticed between the sugar cane and the sugar beet in the natural content of sugar. The sugar cane contains a naturally high content of sugar, which has not been very materially increased by scientific cultivation and selection. The sugar beet, on the other hand, in its natural state contained a very low content of sugar, and its present excellence as a sugar-producing plant is due solely to scientific culture and selection of seeds. The sugar cane may, therefore, be regarded as the great natural source of sugar, while the sugar beet represents what human intelligence, science and agricultural skill can do in developing certain qualities of plants which are of utility to the human race. It is well to keep these two distinctions in view in the discussion of the fiscal relations of sugar and the influence of the cultivation of sugar-producing plants upon agriculture in general and upon national prosperity.

All valuable discussion of this problem must rest upon accurate statistical data. It is, of course, acknowledged by everyone that absolute accuracy in statistics cannot be obtained, but a reasonable approximation to truth in statistical estimates can be reached. Something is always to be said in favor of those statistical data which are not collected for any specific purpose. The human mind is open to bias, and it is difficult to remove, even from honest men, a prejudice in favor of some particular project in which they may be interested. It is, therefore, only right to recognize the fact that statistical data may be introduced in support of some particular con-

tention which are open to the suspicion that they are influenced in some respect by the motive which is dominant in their preparation. Happily for the present purpose, the great mass of sugar data which is available has been collected without any reference to any particular doctrine or theory. While it is true that sugar statisticians in various parts of the world vary widely, both in the summation of data which are supposed to be easy of access, and in the estimates of present and future production, yet there is such a general agreement on the main points as to render these data worthy of consideration.

The difficulties which attend the collection of any reliable data on the early history of sugar are, of course, almost insurmountable. We do know, however, that the earliest form in which sugar was used was that of honey. Sugar from sugar cane began to be known as an article of commerce during the middle ages. Merchants from the East brought specimens of the product of India to the Westward and the cultivation of the sugar cane rapidly spread, under the influence of commerce, to those tropical regions open to settlement which were visited by the oriental merchants. But from the earliest times of the use of sugar, from sugar cane up to within the last century, sugar was not regarded as a food, but was used as a medicine or a condiment to be obtained only by the rich.

EARLY HISTORY OF SUGAR.

The first sugar which is known to have been sent to England was sent from Venice in 1319. In 1700 the price of 100 pounds of refined sugar in London was about 270 shillings, while in 1800 it was still 153 shillings and the price in other parts of Europe were correspondingly high.

Maargraf, a German chemist, was the first to discover in 1747, that the sweet principle in the garden beet, which has been developed from the indigenous beet growing along the Mediterranean coast, was sugar, corresponding in all of its properties to the sugar of commerce, and he prepared laboratory specimens of this sugar. One of his pupils, however, Achard, was the first to prepare sugar on any large scale from the beet, and the results of this discovery were announced in 1747. At this time it was found that the beet roots contained a little over 6 per cent of sugar, and Achard announced that it would be possible to prepare sugar from this source at a cost of not to exceed 6 cents a pound. By reason of the continental blockade, due to the Napoleonic wars, this discovery of Achard excited in France the liveliest interest, and a commission of the French Academy of Sciences was appointed to investigate the matter. The history of the development of the sugar-beet under the Napoleonic regime is familiar to all. Thus we have the remarkable fact that what at the beginning of the last century was regarded as little more than a scientific discovery, of no practical value, has come to be one of the greatest factors in the world's commerce.

It will be interesting in this discussion to review the progress which has been made in the last half century in beet sugar manufacture, as compared with similar progress made in the manufacture of cane sugar. In the following table are found the data showing the world's production of beet and cane sugar from 1853 up to the present time. It is only within a short time, viz., about 18 years, that the amount of sugar produced from these two sources in the world was practically the same. Neither Maargraf, nor Achard, nor Napoleon, in their wildest dreams of success, could have looked forward to a time when the quantity of sugar made from the beet would equal, not to speak of surpassing, that made from sugar cane, yet this has now so long become an accomplished commercial fact that it no longer excites surprise, and people calmly discuss the possibility of the total destruction of the cane sugar industry as a result of the continued development of that of the beet.

The Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

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

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

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

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

List of Stock for Sale.

DOMINION CATTLE BREEDERS' ASSOCIATION.

Shorthorns.

Bonnycastle F., & Son, Campbellford.—10 bulls, 2 to 10 months; 15 cows, heifers and heifer calves.

Ross Bros., Nairn.—2 bulls, 17 months.

Milne, David & Son, Ethel.—2 bulls, number of females.

Fried, John & Son, Roseville.—2 bulls, 14 months; 3 bulls 4 to 7 months.

Morton, F. G., Allandale.—1 yearling bulls.

Rennelson, R., Galt.—2 yearling bulls.

Smith, A. W., Maple Lodge.—5 young bulls; 10 cows and heifers.

Simons, W. H., New Durham.—4 bulls fit for service.

Trestain & Son, John, Strathburn.—10 cows with calves by side; 8 cows and heifers with calf; 8 yearling and heifer calves; 8 bulls, 2 to 20 months.

Hauser, I & Son, Weisenburg.—2 bulls, 18 months; 1 bull, 12 months; 1 bull calf; cow in calf; 2 heifer calves.

Bright, John, Myrtle.—6 bulls, 12 to 15 months; young cows and heifers.

Jeffs, E. & Son, Bond Head.—3 young bulls; 5 bull calves; young cows; heifers and heifer calves.

Ayrshires.

Dundon, John, St. Rock, Que.—1 bull, 1 year; 1 bull, under 6 months

Taylor, F. W., Wellman's Corners.—2 bulls, 2 years; 2 yearling bulls.

Yuill, J. & Son, Carleton Place.—4 bull calves under 7 months; females all ages.

Clark, J. G., Ottawa.—1 bull, 1 year; 3 bulls, 6 months; 3 bulls, 1 to 3 months.

Holsteins.

Dundon John, St. Roch's, Que.—2 bulls, 1 year.

Honey, R., Brickley.—1 cow; 1 heifer, 2 years; 1 heifer calf; 2 bull calves.

Smith, S. E., Dundas.—1 bull, 14 months; 2 heifers from 1 to 3 months.

Devons.

Harper, Samuel, Cobourg.—2 bulls also heifers and heifer calves.

Herefords

Clarkson, Wm., Aurora.—1 bull, 7½ months.

Ayrshires

Glendenning, H. & Son, Manilla.—1 bull, 1 year.

Aberdeen Angus

Burt, J. W., Omingsby.—1 bull, 18 months; 1 bull, 9 months.

DOMINION SHEEP BREEDERS' ASSOCIATION.

Dorsets.

Hunter, John, Wyoming.—Ewes and rams, different ages.

Shropshires.

Yuill, John & Son, Carleton Place—1 ram, 2 sheers; 2 shearling rams; 3 ram lambs; ewes all ages.

Leicesters.

Armstrong, Geo. B., Teeswater.—7 shearling rams; ewes different ages.

Smith, A. W., Maple Lodge.—10 rams, 10 ewes.

Jeffs, E. & Son, Bond Head.—Stock of various ages, both sexes.

Oxford Downs

Finlayson, Kenneth, Campbellton.—1 ram, 2 years; 1 shearling ram; lambs both sexes.

Cotswolds.

Bostwick, A., Oak Ridge.—Shearling ewes; 1 shearling ram.

Bonnycastle, F., Campbellford.—Yearling ewes.

Lincolns.

Parkinson, Ernest, Eramosa.—300 shearling rams; 50 shearling ewes.

DOMINION SWINE BREEDERS' ASSOCIATION.

Chester Whites.

Bennett, G., Charing Cross.—1 boar 18 months; 8 boars, 4 months; 6 boars, 3 months; 10 boars, 2 months; 5 sows, 4 months; 6 sows, 3 months; 8 sows, 2 months; 2 sows, 5½ months.

McPherson, Alex., Rutherford.—Pigs, 6 weeks; sows 3 months; 2 sows in pig and 1 boar.

Berkshires.

Collver, F. J., Welwyn, Assa.—2 sows 1 year, to farrow June or July, 2 litters young pigs.

Hauser, I. & Son, Weissenburg.—Sows in pig, 15 boars and sows, 4 to 6 months; young pigs.

Sieffert, J. H., North Bruce.—7 boars, 3 months; young pigs all ages.

McAvoy, C. C., Atha.—50 boars and sows, 2 to 12 months.

Yuill, J. & Son, Carleton Place.—1 boar, 14 months; 1 boar, 7 months; young pigs.

Bonnycastle, F. & Son, Campbellford.—Young pigs, both sexes 6 to 7 months.

Jeffs, E. & Son, Bond Head.—1 yearling hog; 1 hog, 7 months; 5 sows, 7 months; pigs, 6 weeks.

Tamworths.

Baldwin, Wm. & Son, Manitou, Man.—2 boars, 6 months; 5 sows, 6 months; 7 boars, two years; 8 sows, 2 weeks.

Yorkshires

Glendenning, H. & Son, Manilla.—1 boar, 2 years; 1 boar, 6 weeks; 20 sows, 6 weeks to 4 months.

Herbert de Veber, W., Woodstock, N. B., 3 litters of pigs.

Honey, R., Brickley.—40 sows and boars from 1 to 10 months.

Clark, J. G., Ottawa.—Boar, 1 year old; 40 spring pigs.

Rodgers, L., Weston.—20 boars and sows, 5 and 6 months; 16 boars and sows, 2 months.

Hurley, J. M. & Son, Belleville.—12 boars, 13 sows, 6 to 8 weeks.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected and where last employed.

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

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

Situations Wanted.

Wanted a position by a married man who has had a life long experience in farming and who has a thorough knowledge of all its branches. Would engage as herdsman for a Shorthorn herd. No. 993. a.

Wanted a position on a farm, dairy preferred, by a young man who has had experience in all kinds of farm work, milking and looking after stock, is capable, willing and trustworthy. Address H. Montrose, Weston, Ont. b.

Wanted a position by a young man as groomsman or taking care of horses, who has had three years experience in this kind of work. No. 991. b.

Wanted a position by a middle aged man on a farm where the work is not too heavy, either a dairy or fruit farm or taking care of horses. Can furnish credentials as to sobriety, fidelity and constancy. No. 992. b.

Help Wanted.

Wanted.—A married man to work on a fruit and grain farm. Good house provided also fruit and wood for family use. Salary $250 per year. No. 944. a.

Wanted.—A good man to drive a milk wagon and help on a small farm. No. 945. a.

Wanted.—At once a steady, reliable, single man for general farm work. Must be good with horses and understand general farm work. Good wages for suitable man. Jas. Bowman, Elm Park, Guelph.

Wanted a good single man on a dairy farm near Toronto. Wages $20.00 a month. No. 947. a.

Wanted a man to work on a farm situated on the banks of the Rideau River, 10 miles from Ottawa. General farming. Wages will range from $19 to $22 a month according to experience and usefulness. No. 942. b.

Wanted.—Right away a reliable man with no bad habits, one who can milk and do general farm work. $18 per month for 7 or 8 months. References required. No. 943. b.

Domestic Help Wanted.

Wanted a girl or woman to do house work for small family near Georgetown. Must be experienced and willing to make herself generally useful. References required. No outside work. Good home provided for middle aged woman or widow wanting such. No. 948. a.

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

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Orchard Institute Meetings

By G. C. Creelman, Secretary.

At the last annual meeting of the Ontario Fruit Growers' Association, we were requested to arrange for a series of orchard institute meetings throughout the province. At the beginning of the year we commenced corresponding with fruit growers in almost every section of the province in order to find out the best points at which to hold meetings. It was deemed best not to commence the series until the close of the Farmers' Institute meetings in March. We realized also that this would be a better time for practical demonstrations than when there was more snow on the ground.

ADVERTISING.

Again we found the press of this country quite willing to co-operate with us in forwarding this movement. We sent notices to each newspaper in the several districts where meetings were held, asking them to publish the dates and places of meeting, and also a short synopsis of the work we hoped to accomplish. This was done so well that in almost every instance splendid meetings were held, and we are now getting letters every day congratulating the Ontario Fruit Growers' Association on the success of this new venture.

DISTRICTS VISITED.

In all 49 meetings were held, reaching from Iroquois in the East to Leamington in the West the province being divided for this purpose into seven districts.

1st The Ottawa and St. Lawrence Valley District.
2nd The Lake Ontario District.
3rd The Burlington District.
4th The Niagara Peninsula.
5th The Georgian Bay District.
6th The Lake Huron District.
7th The Lake Erie District.

PLAN OF CAMPAIGN.

The object of the meetings was twofold, first, to give a practical demonstration of the best methods of pruning and grafting, and the general care of an orchard, together with a discussion on matters generally pertaining to fruit. Secondly, the formation of local Fruit Growers' Associations in each place for the purpose of giving the fruit growers an object in meeting together once a month to discuss their business. This was the work of the evening meeting, and many associations have been formed and plans laid for regular meetings to be held, where the following subjects, among others, will be discussed.

Methods of cultivation, picking, packing, grading and handling of fruits, co-operative shipping, and co-operative buying of packages, practical results in co-operative buying.

Already the Georgian Bay people have taken this matter up, and have sent out a circular to each of their five branch associations, containing the following information.

"Believing it to be the general wish of the members of the Georgian Bay Fruit Growers' Association to do something in the co-operative buying of packages and chemicals with the object of placing orders during the slack season, thereby obtaining a reduction in prices, we would be glad to have at your earliest convenience a return of the enclosed blank form properly filled out."

FORM.

I agree to take the following stock to be delivered at the undermentioned place and at prices not to exceed those mentioned below.

....Apple barrels at.....each. Delivered.....'02
...Apple boxes at .....each. Delivered.....
....Fruit baskets at .....each. Delivered.....
. ..lbs. Paris green at.....per lb. Delivered.....
....lbs. Blue stone at.....per lb. Delivered.....
Signed .....
Place of delivery.....
Suggestions—

The secretary at the same time asks for any suggestions that would be for the general welfare of the Association, and asks the ideas of each member upon the following subjects:—

Co-operative buying of supplies, trees, also what they think of establishing an information bureau for the purpose of collecting data on the transportation question, and also to keep the members informed as to fruit prices and other matters of special interest to fruit growers.

IN THE LAKE HURON DISTRICT.

Reports from this district show a decided interest in the meetings, and the series closed with 108 paid members, and the formation of six societies. These separate societies hope to join hands and send delegates to a central point at an early date when they will organize the Lake Huron Fruit Growers' Association. With Mr. Sherrington in charge of the fruit work at Walkerton we have no doubt this association will always be a useful organization.

IN THE ST. LAWRENCE VALLEY.

Here Mr. Harold Jones, Director of the Experimental Fruit Station, Maitland, held a series of five meetings. An association was formed at each place, and local parties have written to say they do not regret having travelled, some of them on foot, ten miles to the meeting. At each place an orchard meeting was held and in many instances local men took an active part. This is especially true in Iroquois, where Dr. Harkness, who has always been an active worker for the fruit interests, met with the farmers and took part in the discussions.

In this district, strange to say, it was necessary to clear up some superstitions. At one point Mr. Jones was confronted with the statement that it was understood they had been sent there by the Ontario Government to cut down their trees, because they believed there was an insect called the San Jose scale, working in their orchards. Mr. Jones was able to inform them that there was no scale in that part of the country, and

took occasion to tell them how serious the pest was in other parts of the province.

LAKE ERIE DISTRICT.

Here again, a fruit experiment station man takes part in the work, Mr. W. W. Hilborn, Leamington. A fruit man, writing to us after the meeting in Kingsville, says:—

"I was present yesterday at the meeting of the fruit growers and heard Mr. A. McNeill and Mr. W. W. Hilborn discuss the subject of "Care of Fruit Trees." We afterwards adjourned to an orchard where they splendidly demonstrated how to prune the different kinds of trees and bushes. It was very instructive, and I wish it could be done in every neighborhood each season."

IN HALTON COUNTY.

Commencing at Bronte, on the lake front, and working back to Waterdown and Georgetown, a series of good meetings were held, Mr. Murray Pettit being the local director in charge. A full report of one of these meetings appeared in the "Weekly Sun" of March 26th.

LAKE ONTARIO DISTRICT.

Here, good meetings were held, commencing in York County and working east to Prince Edward County. The series is not yet completed but such reports as we have show—as we expected in this splendid apple-growing district—first-class meetings and many strong local associations formed as a consequence. The local directors, Mr. Elmer Lick, Oshawa, H. J. Snelgrove, Cobourg and Mr. W. H. Dempsey, Trenton, were assisted by Mr. G. C. Caston, of Craighurst, and Mr. G. H. Vroom, of Middletown, N. S.

PRACTICAL SUGGESTIONS THROWN OUT AT ORCHARD MEEINGS.

In planting, trees should be given a slight slant toward the prevailing wind. The main roots should be placed so as to brace the trees against the wind, and the tree should be so headed that the main branches would not when loaded bend directly away from the tree and so be apt to break off.

Trees, after they have grown crooked, may be straightened somewhat by the use of the spade early in the spring when the ground is soft.

In pruning the south side of the tree it can be left a little thicker than the north side, as it receives more light and moisture.

It pays to thin over-loaded trees at least 20 p.c. as the remaining fruit will be of better quality.

A man who does not know a fruit bud from a leaf bud should never be allowed to prune a tree.

You can hasten the development of fruit spurs and multiply the fruit buds by checking the growth of the wood. This can be done by pruning the roots with a spade, or by nipping off the ends of twigs. The latter method is preferable as it does not impair the vitality of the tree as does the root cutting.

June is the best month in which to prune grapes.

Where large wounds are made in the trees from cutting off large limbs the wound should at once be painted over. A good paint mixture is made by mixing 10 lbs. cement with 10 lbs. of milk. For an old wound where rotting has set in further injury may be prevented by using two parts of cement and one of sand, completely covering the wound so as to exclude the air.

Orchards should be cultivated constantly until the middle of July then a cover crop of clover, rape or rye, to be plowed under next spring.

Apples must be handled more like eggs than turnips if we expect to realize good prices for our fruit.

The Baldwin, Ben Davis, Greening and Spy are at present the favorite commercial variety.

Four years ago Reeve Coyle, of Colborne, purchased an orchard containing ten acres. The price was $2,600. The crop gathered from that orchard in 1900 netted, after all expenses were paid, $2,130. Mr. Coyle made the following statement at an orchard meeting in Colborne last week.

"I shipped 800 barrels of apples from my own orchard two years ago. The dealer to whom I consigned them said they were the best apples he had ever sold in the Liverpool market. There were not five barrels of wormy or scabby apples in the lot. The superiority of this fruit was due to the fact that I had persistently cultivated the orchard and pruned and sprayed my trees."

Bordeaux Mixture. After the blue stone is dissolved it should be put in twenty gallons of water, and the lime after it is dissolved should be put in another twenty gallons of water. The two mixtures may then be brought together. If the lime and blue stone are mixed together undiluted they will curdle.

Mr. Caston strongly advises the use of lye as a wash for trunks of trees. It should be applied every second year after the old bark has been scraped off. It not only destroys all bark lice, but seems to have a tonic effect upon the tree.

Mr. A. McNeill says:—"Each bud has its own individuality apart from the variety to which it belongs, just as each man has his individuality apart from his race. No two buds, no two trees are exactly alike. Hence in budding or grafting, it is important we should select for the purpose."

Speaking at the Georgetown meeting, Mr. McNeill also made the following remark,—"I do not think our Fruit Experiment Stations could do more useful work than by developing good trees from which to supply cuttings for grafting on commercial orchards in their neighborhood. This would be more useful work than developing varieties on doubtful merit."

Ontario Agricultural College.

NOTES FROM THE ANNUAL REPORT FOR 1901.

DAIRY DEPARTMENT.

Prof. Dean's Report for 1901 deals with the class-room and practical work done by the students in the General Course and by those who took the three dairy courses, viz., the Farm Dairy Course, the Short Creamery Course, and the Long Factory Course in both butter and cheese. It also describes a number of experiments made during the year.

Cheese-making. The year's experiments in cheese-making dealt chiefly with the methods of caring for milk, the washing of curds, curing in light versus dark rooms, and curing at different temperatures, with the following results and conclusions:

(1) That cooling milk for cheese making below 70 deg. F. is necessary in hot weather, and that many of the troubles in making cheese in hot weather could be overcome by adopting some method of cooling the milk.

(2) That there is no advantage in washing curds, unless under special circumstances, but rather a loss of about one pound of cured cheese per 1,000 lbs. of milk. "Fast working" curds and curds with bad flavors may be, and usually are improved by washing, especially the former.

(3) That neither light nor the absence of light in a cheese-curing room has any effect on the quality of cheese cured in the room.

(4) That the curing of cheese in cold storage at a temperature of about 40 deg. F. gives very satisfactory results.

As a consequence of the last conclusion, it is strongly urged that co-operative cold storage buildings be provided at central points, and that cheese, especially that made July and August, be placed in these buildings as soon as possible after it is made. This seems necessary for the permanent success of the cheese trade.

Butter-making. The experiments in butter-making were to obtain more reliable information regarding the pasteurization of milk for butter-making, commercial butter cultures, and the moisture and salt-content of butter as affected by different methods of making.

Much pasteurization was done at 140 deg., 160 deg., 185 deg., 195 deg., and 200 deg. F., and the results were published in a bulletin recently issued by Professors Dean and Harrison,—pasteurization at a temperature of 185 deg. F. be recommended for export butter and butter to be placed in cold storage.

Dairy Herd. The Dairy Herd averaged over 8,000 lbs. of milk and 326 lbs. of butter per cow in 1901. The Department is aiming at 10,000 lbs. of milk and 400 lbs. of butter per cow in the year.

FARM AND FEEDING.

In Prof. Day's report, Part VIII. of this volume, will be found a short but clear account of the crops grown on the farm during the year, with observations on the condition and preparation of the soil for each crop, and more detailed information regarding experiments in feeding steers and swine.

Silage for Steers. Steers fed on silage, hay, and meal, made somewhat larger gains and at considerably less cost than steers fed on roots, hay, and meal,—the hay and meal being the same in each case.

Those fed on silage, hay, and meal consumed less dry matter per pound of gain than those fed on roots, hay, and meal—which will be noted as an important matter in view of the fact that the labor necessary to produce a ton of dry matter in roots cost $9.40 and in silage $3.10.

Corn Meal for Steers. Steers fed on corn meal made larger gains and required less meal per pound of gain than steers fed on pea meal, and than steers fed on equal parts of pea meal and corn meal.

Roots for Hogs. Hogs fed equal parts by weight of meal and roots made more economical gains and produced a better quality of bacon than hogs fed meal alone.

Rape for Hogs. Hogs fed on rape pasture and a liberal meal ration required much more meal for a pound of gain than hogs fed rape and the same meal mixture in pens. The quality of bacon was first class from both.

The Bacon Hog. The Yorkshires proved most suitable for producing export bacon, of the six breeds used in experiment, viz., Yorkshire, Berkshire, Tamworth, Duroc Jersey, Chester White, and Poland China.

POULTRY RAISING.

I have already spoken of the four weeks' Special Course in Poultry Raising, and may add here that the regular course students at the college in 1901 received the usual amount of instruction and practical training in this department.

Fattening Chickens. Our poultry manager has fattened and sold a large number of chickens during the past year—some to the college and a much larger number to dealers in Toronto and Montreal; and in the course of his year's work and experiments, he has obtained results which seem to warrant the following conclusions:

(1) That there is more profit in fattening chickens which weigh about 3½ lbs. each when put into the crates, or slatted coops, than in fattening chickens which weigh 4 lbs., 4½ lbs., or more. Birds under 3 lbs. each did well in the crates; but they were rather small to be fed by the cramming machine. Birds weighing 3½ lbs. and those under 3 lbs. made a pound of gain much more cheaply than heavier birds.

(2) That in feeding chickens, the best results and most profit are got from feeding them out of a trough in slatted coops for the first two weeks and by the cramming machine the last ten days,—the birds being kept in the same coops for the last ten days, but being taken out at meal time (twice a day), fed by the machine, and put back into the coops.

The second best results are got by feeding from a trough in slatted coops for the full period of three weeks and three days, or thereabouts.

The least satisfactory results are got from birds allowed to run loose in a pen while they are being fattened. Those fed loose at the college made much smaller gains than those fed in the slatted coops, and the gains which they made cost nearly one-half more.

The Cramming Machine. Will it pay to buy a cramming machine for fattening chickens? Yes and no. Yes, if you are catering to the best market and wish to furnish the finest quality of fowl, especially if you are fattening birds that have been fairly well fed from the time they were hatched, as the greatest advantage from the machine is with birds that lose their appetite or go "off feed" to some extent after being fed in the coops for two weeks or so; No, if you are feeding for ordinary market purposes and cannot very well spare the time, night and morning, for individual feeding with the machine.

Chickens such as we buy from farmers—usually quite thin when they come in—fatten very rapidly in the crates, or slatted coops; and it would scarcely pay to buy a machine for feeding such chickens.

Egg Producing in Summer. By careful tests made by our Poultry Manager last summer,—weighing and charging food, etc., and keeping strict count of eggs,—it was found that Andalusians, enclosed in a yard which was connected with a roosting house, produced eggs at a cost of five cents a dozen, and Plymouth Rocks at a cost of about 6 cents a dozen; but, as the Rocks are much better winter layers than the Andalusians, it is probable that for the whole year they would make a better showing than the Andalusians.

Feeding Ducks. After careful experiment, our Poultry Manager, Mr. Graham, has come to the conclusion that nothing is gained by feeding ducks in crates or with the cramming machine—that ducks will grow and put on flesh just as fast when fed loose in a small yard as when put into crates or fed by the cramming machine,—in other words that you cannot force into a duck's crop any more food than it will eat of its own accord.

INSTITUTE EXCURSIONS.

We had about the usual number of farmers' excursions in 1901—between 25,000 and 27,000 people—nearly all under the auspices of the Farmers' Institutes; and I am glad to be able to report that the majority of those who visit the college year after year, come, not so much for an outing or mere amusement, as to learn something that may be of use to them in the work or management of their own farms. This explains their coming here for so many years in succession.

The Farm Home

A Joyous Lay.

Get your cook-books out and look up
Your recipes for omelets
And the other things you shook up
To make custards and croquettes.
In the long abandoned batter
Let the patent beater spin;
The expense now doesn't matter,
For the eggs are coming in.

You may eat without misgiving
Poached or scrambled, boiled or fried,
Eggs that late for common living
Were a luxury denied
Unless you had wealth unbounded,
Otherwise it was a sin;
But the rumor's quite well founded
That the eggs are coming in.

Where the sweet magnolia blossom
Sheds its perfume on the air
And the corncake and the possum
Are esteemed beyond compare
There's a cackling and a crowing
And the farmers wear a grin,
Which we duplicate, well knowing
That the eggs are coming in.

For a dozen we were paying
Thirty cents or even more,
But the hens at last are laying
As they laid in days of yore,
And for Easter celebration
We may all of us begin
To make active preparation
Since the eggs are coming in.

--Chicago Daily News.

Visiting the Sick.

Will the day ever come when all serious illness will be treated in hospitals? and all sick visitors be under the doctor's control? If that day comes then serious illness will be fewer and more patients will recover.

This may seem a decided statement, but we must realize how trying many visitors are even to a healthy person, then how much more wearing must they prove to one who is battling with disease.

How many people there are who consider visiting the sick a duty, to be sure we have to commendation in the Bible to the person who came to visit the sick, but perhaps these visits were of a curative rather than a disturbing nature. How annoying it must be to a patient who is too ill to defend herself, when perhaps two or three or a half a dozen callers drop in during an afternoon, who kiss the patient on arriving and departing, who talk on all sorts of subjects from the weather, the deaths and illness of others, to the private affairs of the patient or the visitor.

A bright, cheerful visitor may be helpful, especially if the patient when healthy has been accustomed to this person's visits, but if we would practise the Golden Rule in this case we would leave the patient to her doctor, her nurse and immediate friends. Were I sick I feel sure I would not want to be bothered talking to or listening to people who never visit me at any other time, to people who talk ill of me, or to people who consider themselves sufficiently religious to come to preach sermons to me.

If the patient needs constant attendance and if one wishes to be really helpful it might be kind to arrange to come at certain hours to relieve other attendants, or it might be helpful to come prepared to give an hour's work in the kitchen. But it is a mistaken kindness to come merely to talk. I have seen a patient quite exhausted and quite nervous or excited after having one or two visitors. I have seen visitors, when the patient's room has been connected with the common sitting room, walk uninvited in, although the doctor did not approve of visitors. We have too high an opinion of our own attractions when we think a visit from us will make a sick person well. Then too we should consider not what will please the patient but what is best for her or him. It is not every one who has the firmness to deny a visitor entrance especially when the patient too is eager for callers, it is not every one who has the judgment to abstain from unsuitable topics for the patient often has a morbid desire either to talk of her own troubles or to hear of other's pains. When strong healthy people are shut in yet not seriously ill, then we may drop in to help them pass the dragging time, especially if we are of a cheerful nature and know we are among the patient's favorites, but in no case, under no circumstances should we go near meal time or prepared to stay for meals. The only exception to this is when we are to take the place of the nurse or the kitchen maid. But especially in the country do we find two or three members of a family coming, not considering that even a slight illness to one means extra work for others, and they will stay to dinner or to tea, and of course it is an impossibility for the hospitable farmer to deny himself the pleasure of inviting guests to stay for meals no matter when they come. We should time our visit at some other hour and firmly refuse to stay. Often it were better if we think the patient will be helped by knowing he or she is not forgotten, if we simply send a bright plant or flowers that are devoid of strong perfume, or even a note of inquiry. Our aim should be to be helpful not harmful, our thought should be what is best for the sick not what pleases ourselves, and never should we make simply duty calls, calls because visiting the sick is usually considered commendable.

M. E. Graham.

First Tramp--"Did he git anyt'ng in dat house?" Second Tramp--"Naw! Dey wuz day sort of folks dat believes dat charity begins in de woodshed."

Value of Food in Maintaining the Body

At a meeting held on March 6th at the Strathroy Dairy School, Miss Foote of the London School of Domestic Science, spoke on "Foods, their value in building up and maintaining the body."

Housekeeping is an art, as well as a science, and is an essential to beauty, as well as to health in the home. We should know how to prepare foods properly, and to do this it is necessary to know the nature and composition of foods and their uses in the body. Food is that which when taken yields energy and builds up tissue. All foods are not alike, and not suited to different people. Climate and season, and the age and condition of the individual, make a difference. Our food and diet must be regulated to keep pace with physiological changes. The growing schoolboy needs food to build up and repair the brain, as well as the body. Again, the diet depends upon the labor which a person has to do. Inside work and old age require lighter foods. The value of a food depends on the amount and proportion of nutritive material in it. Getting the most good from food is not so much a matter of what is digested, as of making use of what is digested. Beef is more nutritious than fish because it contains less water. Vegetables as a whole are not so nutritive, but they supply the carbovdrates and minerals. Fats and cereals are excellent, but it is necessary to have a mixed diet. High-priced foods are not always the best, but it is their scarcity or flavor which causes them to be sought after. There is much waste of material thrown from the table, and also from over-eating. The latter is not only a waste, but it is injurious to health. The remedy is to understand the elementary facts of nutrition, and to believe that economy is not only respectable but honorable. To thoroughly understand the value and composition of food materials, their use in the body, and how to prepare them in the most nourishing and appetizing way, to best suit the demands of the user, is what domestic science is trying to do.

Meat for Children.

Medical men say that children should have very little butcher meat before the age of five years. Parents find it difficult to follow a fixed rule, the tastes of children vary so greatly. It is frequently rather a question of what they will take than of what they ought to take. They should not be offered meat before the age of eighteen months, and if they have not tasted it they will seldom ask for it. When meat is first given it should be minced very fine, or still better, pounded to a paste. Before

the child has cut all his back teeth he is not able to properly masticate meat, and many children are apt to bolt their food if not watched, and the result is imperfect digestion, and it may be impaired digestive organs later in life. It is said that middle age is the time we suffer most from this, but that the cause lies back in childhood, before the stomach has reached maturity.

Lean meat alone is irritating to the bowels. It should never be given to children, but from the very first day that meat is given it should be mixed with a little tender fat—not an unappetizing piece of skinny fat, but such as will mince or pound. Being early accustomed to the flavor of fat, later on the growing boys and girls will not be likely to perplex their mothers with their obstinate refusal to taste fat. The lean of fat meat is much the best and when marbled with small particles of fat mixed amongst the lean is the ideal condition for wholesome food. If more fat were eaten especially in the winter months by Canadian children, it would help greatly to lessen the danger from tuberculosis. Good fat meat is better than bottles of cod liver oil for this purpose.

Underdone beef is the most digestible and boiled fish is to be preferred to fried. meats, which should be quite forbidden to young children, and corned-beef, tinned meats of all kinds, salt fish, pork, liver and ham. The free use of these foods is apt to bring on irritation of the skin, from which children often suffer. The juice that comes from a roast, when carved, is the very thing for their potatoes.

Although most children, tired of milk and sweet dishes are fond of meat, sometimes there is one in a family who refuses to touch it. A good substitute is an egg, boiled lightly and stirred with a piece of butter into the mashed potato.

How to Prepare a Manuscript

In preparing manuscripts use plain white paper and good black ink. Don't use paper that is flimsy or transparent or so spongy that the ink is likely to blur, nor sheets that are of different sizes or that have been torn out of a notebook and left with the rough edges untrimmed. The two sizes of sheets that are most generally used are commercial note and letter paper. If you have to send out hand-written copy never write it in pale ink or in lead pencil, or in backhand, which as a rule is extremely difficult to make out. Cultivate a round, clear, good-sized, almost vertical hand, and form the habit of leaving a wide space between the lines. Write, of course, on only one side of the paper, and if you find, near the end, that you are going to run a few lines over what you thought would be the last sheet, don't squeeze the final lines together at the bottom of the page or write them on the back of it in order to save another sheet. In both handwritten and typewritten copy leave a margin of at least an inch at both sides of the sheet as well as at the top and bottom. —Franklin B. Wiley, in the April Ladies' Home Journal.

The Best Fertilizer for a Flower Garden.

The best fertilizer for the flower garden is old, well-rotted manure from the cowyard. But those living in the city cannot obtain this. A good substitute for it is fine bonemeal. Use it in the proportion of half a pound to a square yard Scatter it over the soil after you have spaded and pulverized it, and work it in well with a rake.—April Ladies' Home Journal.

Hints by May Manton.

WOMAN'S BLOUSE WAIST. NO. 4086

Blouse waists make the accepted favorites of fashion both for odd bodices and entire gowns. The very attractive model shown is made of ecru veiling with front of cream louisine satin and trimming of applique bands, and is both essentially smart and generally becoming. The tucks at both back and front are arranged to produce a tapering effect and the full front, tucked to pointed yoke depth, is becomingly soft and graceful, the whole effect being admirable for stout figures while suited to the slim as well. All the soft silk and wool fabrics of the season are suitable and combinations without number can be devised.

4086 Blouse Waist. 32 to 40 Bust.

The lining is snugly fitted and closes at the center front. On it are arranged the full front and the back and fronts of the waist that are tucked for their entire length. The sleeves are in one piece each, tucked at the upper portions to fit the arms, the fulness below being gathered to form soft puffs over the elbows, which are held in the outer seams of the close fitting loose portions. The collar is novel and combines the material of the full front with that of the waist. It is attached at the neck edge and closes at the left front.

To cut this waist in the medium size 3½ yards of material 21 inches wide, 3½ yards 27 inches wide, or 2 yards 44 inches wide will be required, with ¾ yards for full front.

The pattern 4086 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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

When.

When I pass the winding river,
Or the bounds of life's wide sea,
To return unto the Giver
This mind He gave to me,
May my soul rest on in joy
As life's sunlight slowly fades,
With no fears then to annoy,
When I meet with life's dark shades,
May sweet twilight dawn in heaven
As the parting ways unite,
And the cheering hope forgiven
Shine through the dim, dark night;
Then hope's bright star will glimmer
And life's weary way grow bright,
And our hold on life grow dimmer
As bright heaven greets out sight.

Housekeeper's Alphabet.

Apples.—Can up hot in glass cans what are left over.

Brooms.—Hang in the cellar-way to keep soft and pliant.

Cranberries.—Keep under water, in the cellar; change water monthly.

Dish of hot water set in the oven prevents cakes, etc., from scorching.

Economize time, health and means, and you will never beg.

Flour.—Keep cool, dry and securely covered.

Glass.—Clean with a quart of water mixed with a tablespoonful of ammonia.

Herbs.—Gather when beginning to blossom; store in paper sacks.

Ink Stains.—Wet with spirits turpentine; after three hours, rub well.

Jars.—To prevent, coax "husband" to provide necessary household conveniences.

Keep an account of all supplies, with cost and date of purchase.

Love lightens labor.

Money.—Count carefully when you receive change.

Nutmegs.—Prick with a pin. If good, oil will exude.

Orange and Lemon Peal.—Dry, pound and keep in corked bottles.

Parsnips.—Leave in the ground

till spring. Use before growth sets in.

Quicksilver and white of egg will kill bedbugs and other vermin.

Rice.—Select large, with a clear, fresh look; old rice may have insects.

Sugar.—For general use granulated is best. Buy when cheap in 100-lb. sacks.

Tea.—Equal parts of Japan and green are as good as English breakfast.

Use a cement of ashes, salt and water for cracks in stoves.

Variety is the best culinary spice.

Watch the back yard for dirt and bones. Do not harbor them.

Xantippe was a scold. Do not imitate her.

Youth is best preserved by a cheerful temper.

Zinc-lined sinks are better than wooden ones. Iron is better than either.

And regulate the clock by your husband's watch, and in all apportionments of time remember the Giver.

Cleaning Feathers.

Many people are not aware that feathers may be easily and successfully washed thus insuring thorough cleanliness and disinfection, at stated intervals or after sickness. To wash a feather bed, it is more convenient to divide the contents by emptying them into two large sacks made of coarse cotton. Have ready a tub of boiling suds to which has been added two or three tablespoonfuls of powdered borax. Immerse the bag in the water and stir with a clothes stick until the feathers are quite clean. Then dip in a second tub of warm, clear water and rinse in the same manner. In warm weather there is no difficulty in drying them, but in winter they should be hung in a warm room, or better still, near a hot air pipe or register, and left for some time before they are again used. Pillows may be treated in the same way and are much easier to manage.

Suitable Clothes for Growing Girls

Shirt-waists are not becoming to the average girl under fourteen. Until that age is reached the full round waist of plaited princess style is vastly more becoming.

The sailor suit is the most universally worn and popular suit for girls of every age. It is distinctly becoming and appropriate to young figures, and may be made of serge, linen, duck or galatea.

The older girl has her sailor suit made with a gored skirt and a belted blouse, and the younger one with a straight full skirt and a blouse identical in style and cut to the one worn by her small brother.

The kilted and plaited skirt is a pretty one, especially for girls from twelve to fourteen years of age. Vertical plaits arranged in clusters extending the length of the skirt are stylish, and another pretty skirt is made with a pointed yoke effect; the plaits quite reaching the knees in front and gradually growing narrower towards the back. This arrangement gives a pretty fullness all around the edge of the skirt and is stylish in effect.—Mrs Ralston, in the April Ladies' Home Journal.

Hints About the Spring Hats.

Hats this spring promise to be more rolling in shape than they were in the winter—the flare of the brim being more pronounced. The trimming still remains flat and wide, and much of it is placed under the brim and well toward the back. The trimming being so placed naturally throws the hat more over the face, which is a good point for summer time. Toques and smaller hats have sharply flaring wide brims, and on the stiffer hats a rosette or a single wide quill is quite sufficient trimming. The hat of black chiffon, for between-season wearing, is very much the best, and a hat of this kind may be worn quite as well the year round. Bonnets of black chiffon, with a touch of white or mauve are more becoming than any other kind for the elderly lady. They are of feather-weight lightness, and yet are serviceable.—March Ladies' Home Journal.

"Fer if the Lord Made Fishin'."

I jes' set here a-dreamin'—
A-dreamin' every day,
Of the sunshine that's a-gleamin'
On the rivers—fur away.

An' I kinder fall to wishin'
I was where the waters swish;
Fer if the Lord made fishin'
Why—a feller orter fish.

While I'm a-studyin' or a-writin',
In the dusty, rusty town,
I kin feel the fish a-bitin—
See the cork a-goin' down!

So I nod, an' fall to wishin'
I was where the waters swish;
Fer if the Lord made fishin'
Why—a feller orter fish.
—Frank L. Stanton.

Miss Parloa's Protection Against Moths.

From this month on the cloth moth begins to make its appearance depositing its eggs in furs and all kinds of woolen materials, and often in crevices in doors, closets and boxes. It always seeks quiet, dark places. Closets, drawers and boxes should be cleaned now. Take special pains to clean thoroughly each crack and groove. Buy at the druggist's a few ounces of the oil of red cedar. With a small brush, such as artists use, apply the oil of cedar to all cracks and grooves in boxes and drawers, and to the tops of doors and baseboards in closets, also around the edges of the floors. Use very little of the oil. There must not be enough to soil anything that comes in contact with the treated surface. This treatment will make closets, boxes, etc., moth-proof for some time, and if closed at once the contents will be perfectly safe through the summer and fall.—April Ladies' Home Journal.

Pointed Paragraphs.

There are more wrecks in the Baltic Sea than in any other place in the world. The average is one wreck a day throughout the year.

The only gem in the world which cannot be counterfeited is the opal.

By actual measurement of fifty skeletons the right arm and left leg have been found to be much longer in twenty-three, the left arm and right leg in six, the limbs on the right longer than those on the left in four, and in the remainder the inequality of the limbs was varied. Only seven out of seventy skeletons measured, or 10 per cent. had limbs of equal length.

It is said by philologists that there are thirteen original languages, the Greek, Latin, German, Slavonic, Welsh, Biscayan, Irish, Albanian, Tartarian, Illyrian, Jazygian, Chaucin and Finnic.

The great pyramid of Cheops is the largest structure ever erected by the hand of man. Its original dimensions at the base were 764 feet square, and its perpendicular height in the highest point 448 feet. It covers four acres, one rood and twenty-two rods of ground, and has been estimated by an eminent English architect to have cost not less than $165,000,000.

The lowest temperature ever recorded was on Dec. 10, 1871, by Professor Gorochon, at Werchojausk, Siberia, 81 degrees below zero.

A steel plate, said to be the largest ever made, has just been turned out by a Stockton, England, iron company. It measures, after shearing, 76 feet 8 inches by 5 feet 6-10 inches in thickness, weighs five and a half tons and is without a flaw.

Eighty-five per cent. of the people who are lame are affected on the left side.

The British Isles comprise no fewer than one thousand separate islands and islets, without counting mere jutting rocks or isolated pinnacles.

Women sailors are employed in Denmark, Norway, and Finland, and they are often found to be excellent mariners.

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. McAinsh, — — — — Publisher.
J. W. Wheaton, — — — — Editor

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

Postage is prepaid by the publisher for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

Change of Address.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

Receipts are only sent upon request. The date opposite the name on the address label indicates the time up to which the subscription is paid, and the change of date is sufficient acknowledgment of payment. When this change is not made promptly notify us.

Discontinuances.—Following the general desire of our readers, no subscriber's copy of The Farming World is discontinued until notice to that effect is given. All arrears must be paid.

How to Remit.—Remittances should be sent by cheque, draft, express order, postal note, or money order, payable to order of The Farming World. Cash should be sent in registered letter.

Advertising Rates on application.

Letters should be addressed:

THE FARMING WORLD,
Confederation Life Building,
Toronto.

Shropshire Specials.

The American Shropshire Registry Association, with its usual enterprise, is distributing a large number of special premiums for Shropshires at the leading Canadian and American shows. The Canadian Fairs that will profit by this distribution are the Toronto Industrial Exhibition and the Provincial Winter Fair at Guelph, each receiving $100, to be awarded as directed by the Shropshire Association.

Ontario Veterinary College.

That well-known institution, the Ontario Veterinary College, has had another successful year. The closing exercises of the session of 1901-1902 were held on March 27th. The graduating class was a very large one and comprised students from all parts of Canada and the United States.

Money for the Maritime Winter Fair.

The executive of the Maritime Stock Breeders' Association, are already exerting themselves in the interests of the Maritime Winter Fair, which will be held at Amherst, N. S., the week following the Guelph show. Mr. E. B. Elderkin president, and Mr. F. L. Haszard, one of the directors recently waited upon the P.E. Island Government and asked for a grant of $400 for the show. The Nova Scotia and New Brunswick Governments have already promised grants of $800 each and it is expected that the Island government will grant the amount asked for. The Dominion Government through the Live Stock Commissioner, Mr. F.W. Hodson is making a grant of $1,000 so that with the grants from the local governments there will be upwards of $3,000 to be devoted to the prize list at the show.

Sheep in New Zealand.

Not only is New Zealand a great dairy country but it is also a large sheep grazing country. Last year there were in the colony 20,254,099 sheep as compared with 19,355,495 in 1900. In 1890 the number of sheep was 16,146,413 so that there has been of about 25 per cent. during the past decade. For the past few years the number of sheep has been pretty constant. There was a very rapid increase in the numbers from 1890 to 1894 when the total was 20,230,820. Since 1894 there has been a slight falling off until 1901 when the total was the largest in the history of the colony.

Successful Dairy Students at Guelph.

During the winter terms of the Dairy School at the Ontario Agricultural College, 103 students registered for the dairy course and 96 for the course in Domestic Science in connection with the School, making a total of 199 registers, besides a large number who were present for a short time or took some of the Domestic Science lectures, but did not register.

The term closed on March the 27th with an "At Home" in the dairy building, given by the instructors to the students and their friends. The evening was most enjoyable. The class separated with a feeling that it was one of the most pleasant and profitable three months which they had ever spent. Quite a number have signified their intention of coming back for a second term. Students who have a limited education find the work, which is crowded into three months rather heavy, and it is a question whether it would not be advisable to extend the course to two terms instead of one, as at present. This would allow more time for advanced work. It is proposed next year to divide the class in cheese-making into experienced and non-experienced men at the beginning of the term. Those who are able to take up advanced work in cheese-making, dairy chemistry, and dairy bacteriology, will find provision for such work, instead of having to take up elementary work along with inexperienced men. If this arrangement proves satisfactory in the cheese-room, the principle will be extended to other branches of the school; and if necessary the term will be extended. A dairy school should meet the needs of a rapidly growing dairy industry, and be able to furnish the strong meat of advanced work to those who have passed the milk experience stage.

The following are the results of the examinations, the names being those passed in all subjects and ranked according to standing in general proficiency:

FACTORY CLASS.

1. J. F. Singleton, Newboro, Leeds, Ont.; 2, H. W. Parry Compton, Quebec; 3, V. Hooper, Tyrone, Durham, Ont.; 4, W. Macdougall, Truro, Nova Scotia; 5, J. H. Brown, Unionville, York, Ont.; 6, J. D. Malcolm, Sheffield, Wentworth, Ont.; 7, J. R. Henderson, Cheltenham, Peel, Ont.; 8, H. E. Allen, New Durham, Brant, Ont.; 9, D. Bustamante, Jujuy, Argentine Republic; 10, R. N. Mitchell, Lennoxville, Quebec; 11 Miss G. Carter, Guelph, Wellington, Ont.; 12, G. S. Dobbie, Guelph, Wellington, Ont.; 13, J. H. Thompson, River View, Grey, Ont.; 14, Miss E. M. Hewson, Mayfield, Peel, Ont.; 15, J. E. Campbell, Linden Valley, Victoria, Ont.; 16, P. Rivara, Buenos Ayres, Argentine Republic; 17, S. Echegaray, Santiago Del Estero, Argentine Republic; 18, J. Weir, Hamilton, Wentworth, Ont.; 19, F. W. Culbertson, Benson, Vermont, U.S.A.; 20, Miss M. Hunter, Rockton, Wentworth, Ont.; 21, L. Winder, Guelph, Wellington, Ont.; 22, D. J. Dwyer, Norwich, Oxford, Ont.; 23, C. A. Metcalf, Red Wing, Grey, Ont.; 24, C. Ball, Guysboro, Norfolk, Ont.; 25, D. Strachan, Jamestown, Huron, Ont. 26, W. B. Dinwoodie, Lyons Middlesex, Ont.; 27, G. A. Miller, Castleton, Northumberland, Ont.

SPECIAL COURSE.

Butter-Making.—1. C. VanBlaricom, Belleville, Hastings, Ont.; 2. J. F. Cowell, Fruitland, Wentworth Ont.; 3. G. Witter, Listowell, Perth, Ont.

Farm Dairy.—1. Miss G. McGill, Eramosa, Wellington, Ont.; 2. Miss J. Evans, Guelph, Wellington, Ont.; 3. H. M. Johnston, Islington, York, Ont.; 4. Miss M. S. Mortimer, Guelph, Wellington, Ont.; 5 Miss J. Glendinning, Manilla, Ontario, Ont.; 6. A. C. Calder, Lancaster, Glengarry, Ont.; 7. Miss R. McCreary, Rosemont, Simcoe, Ont.; 8. Miss K. Wolfe, Hespeler, Waterloo, Ont.; 9. Miss F. Hudson, Guelph, Wellington, Ont.

Country Life in America.

Country Life in America for April has caught the charm of the outdoor world in spring. With large and superb illustrations, it has to do with everything from the trout streams and wild flowers of April to horses and dogs, garden-making, and the varied country pursuits of the month. A beautiful cover in colors is by Walter K. Stone, and, among the leading features, J. Horace McFarland contributes a suggestive article on the blooming of trees and shrubs; the editor, L. H. Bailey, has written the first instalment of a "Country Home-Making" series, telling where best to seek the land for large and small places; and "The Art of Formal Gardening," by J. M. Good, treats of landscape-architecture on the famous Sprague estate at Brookline, Mass.; while the editorial discussion, this month, relates to the popularity of Nature literature and photography, and their significance in the enjoyment of country life.

Publisher's Desk.

The question of fencing on the farm is of stirring interest now that spring is here. The old rails are failing to do duty any longer and as a result it is necessary to turn attention to wire fencing. Barb wire has proven too risky and unsatisfactory in other respects but the Coiled Steel Spring woven wire fence seems to have given general satisfaction.

The London Fence Machine Company, of London, Ont., have favored us with a copy of their spec: catalogue, illustrating and describing the London Fence Machine which they claim builds an excellent woven fence and is a thorough success in all respects. We take pleasure in complimenting the company on the style of their new catalogue. It is very attractive and contains a large amount of useful information for farmers who require wire fencing, and their machines and goods seem to be first-class.

CHANGE YOUR ADS. It is, of course a little trouble for the advertiser and costs us a little every time an ad. is changed but it pays and it pays well. Put a half hour's careful thought into your ad. and let us have a change of copy for next week. A rotation of ads. like a rotation of crops is a good policy.

HE IS TO BE PITIED. We received a letter from a man the other day in which he said that "no farm paper he ever saw wan't worth a cent." Anyway he "could not afford one nuther". Poor fellow he never will be able to afford one. Farming is a matter of hard headed business and the man who neglects to take and read a first-class agricultural paper will find life on the farm a mighty tough job.

STOCK BOOK FREE. An advertisement on the front cover this week will interest our readers. The International Stock Food Company of Minneapolis, Min., offer to send free post paid a large handsome volume to anyone who will answer the three simple questions in their adv. Every reader can do that. We have seen the book and it is worth asking for. Read the adv.

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

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

Cattle.

Messrs. E. L. & W. G. Robinson, Wallace, Ont., write as follows: "Our Shorthorns have come through the winter in good condition. Our latest sales have been one bull to Henry Fisher, Kurtzville and one bull and also one cow and bull calf to Eli Moore, Trowbridge, Ont."

Mr. W. B. Campbell, Campbellcroft, Ont., secretary of The Central Ontario Pure Bred Stock Association, writes:

"Our sale, which came off, as advertised, on April 1st, was considered by all the contributors as very satisfactory, owing to the short time advertised. There were 11 males and 7 females in all, selling at an average price of $68.00. The highest price was $100.00 and the lowest $40.00. The buying was principally local, which bids fair for an improvement in the stock of this section.

"The Central Ontario Pure Bred Stock Association will make a far better showing next year."

Mr. S. Hoxie, superintendent of Advanced Registry for the American Holstein-Friesian Association, reports official records of cows from February 20th to March 15th, 1902, as follows:

"During this period one report for thirty days and seventy-one for seven days, each have been received and accepted.

"Thirty full-age cows; average age 7 years, 6 months, 18 days; days after calving 24; milk 429.4 lbs.; butter fat 15.230 lbs.; equivalent butter 80 per cent. fat 19 lbs. 0.6 ozs., or 17 lbs. 12.3 ozs. 85.7 per cent. fat; quality of milk 3.55 per cent. fat.

"Eleven four-year-olds, average age 4 years, 8 months, 4 days; days after calving 16; milk 408.2 lbs.; butter fat 14.253 lbs.; equivalent butter 80 per cent. fat 17 lbs. 13.1 ozs., or 16 lbs. 10.1 ozs. 85.7 per cent. fat; quality of milk 3.49 per cent. fat.

"Fifteen three-year-olds, average age 3 years, 7 months, 9 days; days after calving 23; milk 355.9 lbs.; butter fat 12.774 lbs.; equivalent butter 80 per cent. fat 15 lbs. 15.5 ozs., or 14 lbs. 14.4 ozs. 85.7 per cent. fat; quality of milk 3.59 per cent. fat.

"Fifteen two-year-olds, average age 2 years, 3 months, 21 days; days after calving 41; milk 273.4 lbs.; butter fat 9.492 lbs.; equivalent butter 80 per cent. fat 11 lbs. 13.8 ozs., or 11 lbs. 1.2 ozs. 85.7 per cent. fat; quality of milk 3.47 per cent. fat.

British Columbia Live Stock Trade.

The annual meeting of the Dairymen's and Live Stock Association of British Columbia, held at Victoria, early in March is not without interest to Eastern breeders. The chief interest, however, centres about the report of the late secretary, Mr. C. H. Hadwin, which deals chiefly with the importation of pure bred stock from Ontario and the East. The association through Mr. Hadwin took up this work in an energetic manner and was the means of bringing into British Columbia a large number of pure bred animals, three times as many perhaps, as would have been brought in had not the association taken up the work.

Mr. Hadwin anticipates that from 75 to 100 bulls a year will be required by the British Columbia ranges alone and as the ranchers combine to do away with the scrub sire they will require many more than the number stated. In referring to his trip East last fall he pays a well deserved tribute to the Winter Fairs at Guelph and Amherst, and recommends that an attempt be made next winter to hold such a fair in British Columbia.

Referring to the trade in pure bred stock, Mr. Hadwin says:

"In regard to the importations of stock some criticisms have been made that the quality has not been what it should. This is a question largely of prices. We have so far limited Mr. Hodson, (the Live Stock Commissioner who purchased the stock in the East) with the lowest price of cattle at which he could buy specimens worth sending out. This has been especially so in the case of Shorthorns, and he has, in spite of this, sent some very good individuals; to do this he has, of course, to buy from the smaller breeders. His limit for heifers has been about $100 and for bulls about from $75 to $100.

"Now, it is impossible to go amongst breeders of repute and get stock that is first class at these figures except by chance."

Mr. Hadwin here quotes figures from auction sale prices in the United States and in Ontario to show that it is impossible to get really first-class stocks within the limits named. He then continues as follows:

"I carefully went into the question of prices while I was in the East, and I do not think an individual could have purchased the stock we have got for less money than we have paid for it, while the expenses in buying would have been much greater. The question now is

will our breeders pay higher prices so that we could pay more for the stock and not be at a great loss, for the past sales I do not think we could have done.

"At the present time the greater part of our breeders still think $100 a great deal of money to pay for a bull; even our largest breeders hesitate about paying more, while the average farmer of the province wants to get something that will do for $50. The same thing has applied to our ranchers, although many of them now see the advantages of pure bred blood and are anxious to get it. In the Western States the ranchers are paying better prices than the farmers, and are turning out on the ranges 300, 500 and even 1,000 bulls because they find it pays. This is a question of education. Now, I have heard of range calves being sold for $20, and on the Lower Fraser ordinary yearlings sold for $30 this winter. These prices do not correspond with requests for bulls at $75; it is not reasonable.

"I believe, however, that we shall gradually be able to raise our prices, and, have no doubt that the man who pays $100 now will probably not think so much of $100 when he comes to buy again.

"In whichever light we look at it in the consignments received many very good individuals have been sent, others will no doubt throw good stock, which, if given good care, will show improvement on the original stock, for I see no reason why we cannot raise in this province stock every bit as good as any that have ever been raised in Ontario, and I look forward to the time when our breeders will send stock to the Toronto Exhibition.

"In connection with the stocker question, I have already published my views. It is, however, the most important movement which has been before the ranchers and farmers of this province for some time and it has aroused a good deal of interest. It seems probable that further importations will be made before long."

In the last paragraph Mr. Hadwin refers to the large purchases of Ontario stockers made last fall for the British Columbia ranches. It will be gratifying to eastern farmers to know that this trade has proven satisfactory and that further purchases will be made before long.

Referring to the horse trade, he points out that nothing has as yet been done by the association to develop it. The present demand is drawing more attention to the breeding of horses and their improvement on the ranges is badly needed. Something should also be done to develop the swine industry and to encourage the raising of swine sufficiently to establish a packing house. The poultry trade should also be given attention and an effort should be made to have poultry fattening stations established by the Commissioner of Agriculture and Dairying similar to those in the eastern provinces.

Market Review and Forecast

Office of the Farming World, Confederation Life Bldg.

Toronto, April 14th, 1902.

Trade in wholesale lines continues active and the prospects bright. Payments continue favorable. Money keeps active and the speculation in Canadian stocks keeps up its pace. A stop will come to it some day and then there will be grief for those loaded up with high priced stock.

Wheat.

There is little new to report in wheat. Early in the week there was some advance at Chicago owing to reports that the crop was not in as good condition as expected. But this advance was not long sustained and at the end of the week no material change from a week ago was reported. Stocks on hand continue large and the prospects of any permanent advance are no brighter than they were a week ago.

The bulk of the Canadian business doing is in Manitoba wheat which is quoted at Fort William at 71c 71½ for No. 1 Northern, 68c to 68½c for No. 2 May. The market here keeps dull at 71c to 72c for red and white, middle freight, 66c for goose and 71c for No. 2 spring east. On Toronto farmers' market red and white bring 70c to 76c, goose 66½c and spring 67c per bushel.

Oats and Barley.

Oats are in fair demand here but prices are firmer at 40c at outside points. On the farmers' market they bring 46c to 48c per bushel.

Barley rules steady at 48c to 53c as to quality and point of shipment. On Toronto farmers' market, malt barley brings 54c to 60½c and feed barley 53c to 54c per bushel.

Peas and Corn

Peas are quiet at 79c at outside points. On the farmers' market here they bring 84c per bushel.

The corn market is somewhat quiet, Canadian No. 2 yellow being quoted at 56½c west in car lots.

Bran and Shorts

Ontario bran at Montreal sells at $18.50 and shorts at $21.75 to $22.00 for car lots on track. City mills here sell bran at $18.50 and shorts at 21.00 in car lots f.o.b. Toronto.

Potatoes and Beans

Car lots of Ontario potatoes are quoted at Montreal at from 65c to 68c per bag. Offerings are large here with a light demand at 55c to 57c in car lots. On Toronto farmers' market potatoes bring 60c to 75c per bag.

The bean market keeps easy. Primes are quoted at Montreal at $1.10 to $1.15 per bushel in car lots and $1.20 to $1.25 in a jobbing way.

Hay and Straw.

The hay market rules on the quiet side. Armour & Co., of Chicago, are still buying in the east, where car lots of No. 2 baled hay are quoted at $7.50, at country points. As farmers are busy with the spring work there is not so much coming forward and this has checked the downward trend of prices. The market here rules steady but quiet at about $10.00 for No. 1 Timothy in car lots on track. Baled straw sells at $5.00 in car lots. On Toronto farmers' market timothy brings $12.00 to $13.50, clover $8.00 and sheaf straw $9.00 per ton.

Eggs and Poultry.

The reported entry of Swift & Co., Chicago, into the Canadian egg trade as announced elsewhere has given this branch increased interest. The firm has not commenced buying and threfor has not had any effect yet in advancing prices. The Montreal market keeps well supplied, but prices there are firm at 12½c to 13c in case lots. Though offerings are large here the demand is good at 12c in large lots. On Toronto farmers' market new laid eggs bring 10c to 12c per dozen.

The demand for dressed poultry at Montreal keeps good. Choice turkeys are quoted at 13c to 14c, chickens 12c to 13c, geese 7c to 8c, and ducks 10c to 11c per lb. in large lots. There is a good demand here with light offerings. On Toronto farmers' market live and dressed chickens bring 70c to $1.00 and ducks $1.00 to $1.25 per pair and geese 8c to 9c, and turkeys 15c to 18c per lb.

Live poultry like dressed are scarce. The Canadian Produce Co., Ltd., 36 and 38 Esplanade st. East, Toronto, will pay until further notice for live chickens, 8c, for ducks and turkeys 11c, for geese 6c per lb. All must be young birds. For hens 5c per lb. Dressed poultry, dry picked (except hens), ½c lb. higher. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c per 100 lbs. of chickens. No thin birds will be taken.

Seeds

A good demand keeps up in England for Canadian red clover seed. Montreal selling prices are $14.00 to $17.00 per cwt. for alsike, $9.00 to $10.50 for red clover, and $8.00 to $9.00 for timothy in a jobbing way. Prices still rule high here. On the farmers' market alsike brings $10.00 to $17.00, red clover $7.50 to $9.50 and timothy $8.00 to $8.50 per cwt.

Cheese

The cheese situation continues strong and prices keep up. The English market is firmer and finest fall Canadian is quoted at 56s to 57s and fine 53s to 54s, which is an advance of 1s during the week. Finest westerns are quoted at Montreal at 11¼c to 11⅜c and finest easterns at 11c to 11⅛c. The total exports to date from Canada and the United States show a decrease of 447,166 boxes as compared with the same period a year ago. It is estimated that from 20,000 to 25,000 boxes of April cheese will be made. A number of factories have contracted their April make at from 10c to 10¼c which is quite 2c per lb. more than fodder stuff sold for

a year ago. These are good prices to begin with.

Butter

The Trade Bulletin's summary of last week's butter trade is as follows:

"At this period of the year fresh made butter is generally scarce, but the season is too far advanced to speculate on much higher prices, and in a week or ten days' time supplies may be expected to increase. Already the April make of several Western creameries have been contracted by an English firm, the first lot of which has already gone forward. Most of the held creamery and dairy in this market have been disposed of for American account. A lot of 300 tubs of dairy was sold in Ottawa this week for English account. Sales of held Western creamery were made today at 17c to 18c, and a lot of solid boring Western dairy at 14c and inferior Western at 12c to 13c. A lot of choice Eastern Townships creamery sold to-day at 22c and a lot of fancy at 22½c."

Offerings of good creamery and dairy here continue scarce and prices rule strong. A lot of the dairy stuff offered is very poor, and consequently there is an extra demand for creamery which sells readily at 22c to 23c for prints and 21c to 22c for solids. Choice dairy sells at 18c to 20c for lb. rolls, 17c to 18c for large rolls and 14c to 16c for tubs. On Toronto farmers' market lb. rolls bring 18c to 22c and crocks 15c to 17c per lb.

The cattle markets of the week have ruled strong with higher prices for all first-class animals. At New York, Buffalo and Chicago, the situation was very strong with prices advancing. Quotations for prime steers at Chicago have ranged from $6.60 to $7.50 during the week and poor to medium at $4.50 to $6.50 per cwt. Cables are firm and the outlook for this strong condition of the market being maintained for sometime is good. There seems to be a scarcity of really prime stuff.

At Toronto cattle market on Friday the run of live stock was not large, comprising 627 cattle, 1,267 hogs, 86 sheep and lambs, and 98 calves. The fat cattle offered were generally mixed loads of butchers and exporters. A few straight lots of shippers were offered but they were of medium quality, not being as good as earlier in the week. Trade was very brisk and at 9 a.m., nearly everything was sold. There was a rush of cattle buyers at the gate at 8 a.m. when the gates were opened so eager were they to make purchases. The highest price quoted for exporters was $6.00 per cwt. and the highest quotation for choice picked lots of butchers was $5.75 per cwt. Choice well-finished heavy exporters are worth $6.15 to $6.35 per cwt. Feeders and stockers are in demand and sold readily at quotations. There has been a large supply of calves the large number being of poor quality. Good new milk calves five or six weeks old, that have been suckled by their dams are scarce and in excellent demand.

Export Cattle.—Choice loads of heavy shippers are worth from $5.75 to $6.00 per cwt., medium exporters $5.50 to $5.70 and light ones $5.15 to $5.40 per cwt. Heavy export bulls sold at $4.50 to $5.00 and light ones at $3.75 to $4.25 per cwt., choice export cows sold at $4.40 to $4.75 per cwt.

Butchers' cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at $5.25 to $5.75 per cwt. Choice picked lots of butcher's heifers and steers, 925 to 1,025 lbs. each sold at $4.85 to $5.00, good cattle at $4.85 to 95.25, medium at $4.50 to $4.60, and inferior to common at $3.50 to $4.25 per cwt.

Feeders.—Light steers, 900 to 1,000 lbs. each sold at $4.00 to $4.60 per cwt.

Stockers.—Yearling steers weighing 500 to 800 lbs each sold at $3.50 to $4.00, and off colors and those of inferior quality at $3.00 to $3.25 per cwt.

Calves.—These are lower at Buffalo. Good to choice veals bring $6.00 to $6.50 per cwt. At Toronto market good to choice calves bring $4.00 to $6.00 per cwt. and $2 to $10 each.

Sheep and Lambs

Owing to the light run of sheep and lambs prices for these were firmer. There were a few choice spring lambs offered and more would sell readily at good prices. Sheep ruled steady at $3.50 to $4.25 per cwt. and yearling lambs at $4.50 to $6.00 per cwt. Spring lambs are worth from $2.50 to $5 each.

Hogs

Hogs were slightly lower last week than the week previous, select bacon hogs selling at $6.15 and lights and fats at $5.90 per cwt. with the market firm. Unculled car lots sold at about $6.00 per cwt.

For the week ending April 19th the Wm. Davies Co., Toronto, will pay $6.25 per cwt. for select bacon hogs, $6.00 for lights, and $6.00 for fats.

The Trade Bulletin's London cable of April 11th, re Canadian bacon reads thus:

"The market is 2s lower for Canadian bacon, but at the decline there is an improved demand."

Horses

Owing to the Horse show and last week being a kind of pleasure week for horsemen, comparatively little business was done at Grand's. On Friday some good ones, mostly drivers, were offered but only a few were sold. A nice driving mare sold for $200, a brown gelding for $225 and a pair of gray cobs for $295. A number of good drivers sold at from $150 to $175 each. Though not much business was done directly at the horse show a lot of prospective business was arranged for.

Some Poultry Experiments

The Maine Experiment Station Bulletin 79, just issued, contains an account of experiments in fattening chickens for market, the incubation of eggs stored under different conditions, the relation of mating to fertility of eggs, and breeding for egg production, including the egg record of the breeding pens for 1899, 1900 and 1901.

Comparisons were made between chickens kept in small coops and in houses with yards. To learn if close confinement in small numbers, gives better results than where large numbers are kept together without close crowding. The results show that close cooping is not necessary in order to secure the greatest gains in chicken fattening, and that the chicks made greater gains when given a little liberty than when kept in close confine-

ment. The results of numerous trials show plainly that with poultry the periods of cheap and rapid gains in weight come early in life.

The experiments in incubation included a study of the effects of different conditions as to air, light, temperature, transportation, under which the eggs were kept before being placed in the incubator. The results of studies upon the time required to establish fertility after mating, and the continuance of fertility of hen's eggs after mating ceases and the fertility of eggs of different shapes are also reported.

For several years past the station has been breeding Barred Plymouth Rock and White Wyandotte hens with the hope of increasing the number and improving the size and color of the eggs.

Dealing with the experiments the Bulletin says:

"During the three years in which we have been selecting breeding stock by use of the trap nests we have found 30 hens that laid between 200 and 251 eggs each in a year. Twenty-six of them are now in our breeding pens and constitute —until other additions are made to them—the "foundation stock" upon which our breeding operations are based. Males for our use have been raised from them during the last two years. The number of the foundation stock, now secured, makes practicable the avoidance of inbreeding, and this is to be strictly guarded against, as it is doubtful if the inbred hen has sufficient constitution to enable her to stand the demand of heavy egg production.

"All of the other breeding stock we are now carrying are tested hens that have laid over 180 eggs in a year; pullets whose mothers laid over 200 eggs in one year and whose fathers' mothers laid over 200 eggs in a year; and pullets sired by cockerels whose mothers and grandmothers laid over 200 eggs in one year. The size and color of the Plymouth Rock eggs are very fine. The eggs from the Wyandottes are of good shape and size, but are as yet too light in color."

The Thames of England is 220 miles long. The river of the same name in Canada is 160.

Feet.—The clergyman did not altogether forget the spirit of his stern old theology. "I am a worm," he protested intensely; "but I am no centipede!" In these words did he find voice for the thoughts that surged up in his breast, as he contemplated the thirty-four pairs of carpet slippers which the Christmas donation party had left.

Aphorisms—Every man who sits around with his hands in his pockets usually has nothing else there. A thing may be good or it may be cheap—seldom both. Don't judge a man by his voice. The cheapest watches tick the loudest. The man who knows nothing, and knows he knows nothing, knows a lot.