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THE FARMER'S ADVOCATE & HOME MAGAZINE

WILLIAM WELD, EDITOR AND PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the 1st of each month. Is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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CONDITIONS OF COMPETITION.

1.—No award will be made unless one essay at least comes up to the standard for publication.

2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling, our object being to encourage farmers who have enjoyed few educational advantages.

3.—Should one or more essays, in addition to the one receiving the first prize, present a different view of the question, a second prize will be awarded, but the payment will be in agricultural books. First prize essayists may choose books or money, or part of both. Selections of books from our advertised list must be sent in not later than the 15th of the month in which the essays appear. Second prize essayists may order books for any amount not exceeding $3.00, but no balance will be remitted in cash. When first prize essayists mention nothing about books, we will remit the money.

A prize of $5 for the best original essay on *How can Farmers Best Protect Themselves Against Combines* has been awarded to James Laidlaw.

A prize of $5 will be given for the best original essay on *Is Sheep Raising Profitable in Canada, and What are the Future Prospects?* Essays to be handed in not later than July 15th.

A prize of $5 will be given for the best original essay on *Is Hog Raising Profitable in Canada? What is the Most Economical System of Feeding and General Management? What is the Future Outlook?* Essays to be handed in not later than August 15th.

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Over $700 Worth of Stock Given Away

Year by year we have become more and more impressed with the fact that it is a necessity for the prosperity of our farmers and the progress of our country that the native stock is improved by the use of pure-bred sires. Therefore we have made arrangements with some of our leading breeders whereby we can offer some of their best animals at prices below their actual cost, and on such terms that any of our farmers can obtain them without an actual money outlay. We can heartily recommend all the animals and their breeders. See the illustrated prize list in our advertising columns. The description of each herd from which these animals have been obtained has been given, or will be given, in the columns of the FARMER'S ADVOCATE. Read them !

Editorial.

Hope.

We are pleased to state that Hon. Charles Drury, the recently appointed Minister of Agriculture for Ontario, and Professor Saunders, the gentlemen to whom the power of selecting and managing the Experimental Stations has been entrusted by the Dominion Government, have both asked for inspection, criticism and suggestions. The former in regard to the Model Farm at Guelph, and the latter regarding the Central Station. It is our opinion that both these gentlemen desire to do good through these institutions, and the only way we can hope that they may become the most beneficial and the least injurious is by complying with their requests. To convince the public that they are really in earnest, we would first suggest that they would give a pretty full account of past errors or mistakes that have been made previous to receiving their appointments, and even during their term of office.

Mistakes, no doubt, have and will occur in every business, the acknowledgment of which tends to honor and improvement, while the concealment tends to greater errors.

We have personally and through the ADVOCATE, furnished information, directly and by criticism, that has been acted on. A new feature has been developed at the Model Farm, which we think commendable, that is, a pleasure resort to which excursions are made by picnic parties and other farmers' gatherings. We would suggest that in selecting future sites for experimental purposes, after the soil and subsoil are found suitable, the second consideration should be living water, for a stream of water, with a good pond here and there, when a lake or large river is not convenient, tends to make a location much more attractive ; in fact, is almost indispensable for the best effects. It might even be taken into consideration, which would be more costly to construct, hydraulic works, or to procure locations that possess the best natural advantages. Both stock and vegetation thrive best where soil is good and water is procurable by them. These educational establishments should in time have their parks, with all the various botanical productions that are adapted to the district in which they are located. Buildings can be more easily erected, then crops, trees and living water secured in abundance in some localities. Often the first cost is the least.

Now, both political parties are pretty unanimous in granting money for agricultural expenditures, and both claim to be anxious to make these institutions beneficial. The popularity of public resorts are greatly enhanced by the verdure of the earth and the presence of water. Perhaps these remarks may tend to good, if not to the existing establishment, to the selections of future sites. Partisan feelings have been so extreme that any comment on these institutions, whether regarding their establishment, management, the diseases of live stock, or the instruction imparted, have been termed "Factious Opposition," and sometimes facts have been falsified or caused to be misleading, by those zealous to give unmerited good reports. Our aim has been and will be to cause Government agricultural expenditures to be of as much benefit to farmers as possible, and to have these institutions conducted, as far as practicable, by farmers and for farmers. The remarks lately made by the above gentlemen raises our hope.

Notice.

In our efforts to supply our subscribers with the latest and most valuable information on all agricultural subjects of interest and importance to agriculturists and others, we have spared neither time nor money, and have felt repaid by the good will of those for whom we worked. Yet we object to have the matter for which we have worked and paid stolen bodily or mutilated by other journals without credit being given to us. Private individuals, publishers, and even the Government, have not hesitated to appropriate the result of our labors without giving us credit. In future the copyright law will be more rigidly enforced against all infringers.

To all publishers we extend the hand of fellowship, and say, you are heartily welcome to the result of our labors. We will be pleased to see our articles copied into your columns as before, and are prepared to make arrangements regarding electrotypes of our engravings, when you desire them, but we insist that in every instance due credit be given to the source from which they are obtained. Say that the matter is copied from the FARMER'S ADVOCATE.

On the Wing.

(Continued from Vol. 22, No. 5.)

THE PACIFIC SLOPE NO. 1.

We leave Victoria by boat for Seattle. The steamer stops at one of the ports on the Puget Sound to unload and reload her freight, and we step on the wharf and walk up the pier. Here we find boys fishing. The fish-hooks are soldered on a triangular piece of strong iron wire, five hooks on each side, and this is thrown into the water by a fishing-rod and line, then pulled quickly out. The fish are so numerous as to appear almost a solid mass at the bottom, and the water is so clear that thousands may be seen. By quickly drawing this barbarous implement up some of the hooks are pretty sure to strike a fish, and many are wounded to every one that is hooked so as to land it. We take the railroad from Seattle to Tritoma, passing through the largest hop garden in the world. Tramways are laid to take the hops from the gardens to the drying-house. The hop poles used are split cedar, twenty-feet long. Any amount of hop land is attainable. The hops are of good quality, and cannot be so cheaply and easily raised in any other part of the world we have seen or read of. We pass through Washington Territory. This is a fine agricultural part of the country. We can tell by the growth of the timber and the appearance of the soil that it is productive; but it has its drawbacks. Its thick fogs and rains and warm weather cause rheumatism, and a moss or fog is seen on the land.

Portland, situated on the Willamette river, and 122 miles from the Pacific Coast, is the principal port in Oregon Territory. Tritoma and Seattle in Washington Territory, are cities showing signs of great prosperity, and are strong rivals for the mercantile business of Puget Sound. We leave Portland by rail for San Francisco.

At Ashland, at the foot of the Olympian Range, we take the stage for thirteen miles over the mountains, the railroad not yet being complete. Six good horses are attached to this vehicle. We take our seat by the side of the driver, an elderly man, whose whole life appears to have been spent in driving stage coaches over the most dangerous routes. I always thought I could drive horses where any other man could, but I would not attempt such a drive as this on any account. After slowly climbing up the steep ascent, in some places a dash down a declivity would cause one to think the hind part of the stage would tip over on you; at others the turns were so acute as to cause one to think the hind wheels must go over the precipice and take all to an abyss hundreds of feet below. To add to this a shotgun guard sat behind me with his hand on the trigger ready at any moment to shoot at a stage robber or an Indian should any suddenly appear. The previous day the driver had a bead drawn on him—that is, a pistol was pointed at him to cause a halt. The shotgun guard and a passenger instantly covered the ruffian with the gun and a pistol, thus preventing an encounter. The previous week, on a route not far from here, another driver had the bead drawn on him, but he would not or could not stop. The robber fired. The ball struck a passenger that was sitting by the side of the driver and killed him. We might fill a paper with such, but we enjoyed this drive immensely, although not devoid of danger. There is one tollgate on this road. The toll is $1 50 for a single horse and $2.50 for a stage. The price of passage for the thirteen miles is $5, and 3c. per lb. for luggage. The road, we presume, will be abandoned as soon as the railroad is complete.

At the end of the stage road we again take the train, and pass through the Sacramento Valley on our way to San Francisco. On this route we had the roughest ride previously taken. A travelling companion was thrown so violently against the plate glass window in the washing department that his head broke the glass. In the valley we heard of so much malarial sickness brought on by irrigation that its charms were much diminished, despite its great vine and fruit capabilities.

We arrived in San Francisco rather badly shaken up. Not feeling very well we tried to rest, but that is a difficult matter to obtain when travelling for information. We remained some weeks at this busy, thriving place. The sight of the sea lions basking, barking and playing on and around a large rock not far from the Golden Gate was a sight that pleased us much. Hundreds of these immense animals live about this place, and have now become a cause of complaint, because it is claimed that they destroy all the good fish in this locality. They are protected by Government; no one being allowed to kill one for many miles around. We visited Alameda, Oakland, and the California Agricultural Experimental Station at Berkley. From one of the professors we learned that the quality of the grape and other California fruits are greatly deteriorated by the large amounts of water taken up by them from irrigation, and that the quality of the juice of the grape was many-fold superior where irrigation was not practiced to so large an extent. They were making many, no doubt, very valuable tests and experiments in their laboratory with wines when we were there. Agricultural lands are worth from nothing to one thousand dollars per acre, depending on location.

San Francisco has such a good harbor and so many other advantages that it appears destined to command the principal business on the Pacific slope, although there are other important points. It is a busy and prosperous city, located on the side of a hill facing east. Cable cars are on many of the streets; the ascent or descent on some of them is so very steep as to cause fear in strangers unaccustomed to descend into mines. The west part, or the entrance into the harbor, is bleak. The climatic changes are very great on the Pacific coast; at times one almost requires an overcoat, and in a few hours one's shirt sleeves are most comfortable. Thick, damp fogs sometimes suddenly arise, and an umbrella or waterproof may be needed. These fogs and sudden changes are confined to the coast and a narrow strip of the adjoining country; for this reason a very large proportion of the private residences are located a dozen miles or more inland—Oakland and Alameda being favored resorts. These are reached by lines of large and magnificent ferry boats, that run every half hour, a distance of about five miles, thence connecting with railroads running through these towns. The railroads in Alameda are free, no charge being made to anyone; even the school children jump on the cars and go and return from their schools—the Alamedians would not give the railroads running power, without this privilege. Despite this privilege the company make it up by their boats, as they have the monopoly—the fare to San Francisco and return being 25 cents, and about $3.50 for monthly tickets. The constant stream of traffic is very great, especially in the mornings and afternoons.

The fruit, shrub and floral products are very pleasing where irrigation is practiced, and attention given to the gardens, but the beauties of these charming spots are much increased or diminished as you may view it by the fact that immediately beyond the irrigated ground only a bare, dry surface is to be seen. No green grass will grow here without irrigation through the summer months. They have a fine market in San Francisco, of which they feel very proud, and consider it is supplied better than any other city in the world, with all the varied product. It really is a grand sight, but it just lacks one stall, and this is an Ontario one, for the supplying of Canadian bacon, hams, butter, cheese, potatoes and apples, as there are plenty of people that can and will have the best if they can get it. They may talk and brag all they choose, but never will be able to produce such products in their dusty, even, and debilitating climate, as we can. Their apples, potatoes, beef and mutton is very much inferior to ours; the product of the animals must be like the animals themselves. It may not be generally known, but the fact is, that even a horse raised in a debilitating climate, although he may look as well, has not the endurance that those have that are raised in the North. It is so with men, and from what we have seen and heard this climate has a most baneful effect on women. There are young, active, pretty and refined ladies here, but they become aged and broken-down early in life. We do not think the average of them can stand one-half the fatigue, nor are half as good, physically, as our Canadian women. This is attributable in a great measure to the pleasing, although debilitating, even temperature.

[TO BE CONTINUED.]

Mr. Smith, in his articles on Holsteins, shows how marvelously the milk production of these cattle has been increased within the last ten years.

Mr. Fuller, while claiming superior qualities for the Jersey, says the yield of any cow may be increased or diminished, according to how she is fed or managed.

There is much to be learned in Mr. Snell's, short but pointed reply. Yet which is the most profitable cow has yet to be learned. The fact that one animal, or a group of animals, produces more pounds of milk or butter in a given time than another, argues little. The real question is, which gives the most value in return for the food consumed.

A Clydesdale can move a much greater load than a French Canadian or a Cleveland Bay, but that does not argue that he is the best farm horse, and the only one that should be used.

We would like to hear from some of our breeders the actual amount of feed consumed and products obtained. This would interest our farmers and be of value to them.

Fairs or Shows.

The first time we heard Lord Lansdowne speak was at the Provincial Agricultural and Arts Association's Exhibition held in Ottawa. He said he considered the name of Exhibitions too pretentious, he thought Fair a more appropriate name, and approved of amusements. This, we think, sanctions the horse race, trapeze, rope dancing, etc., etc. The FARMER'S ADVOCATE as for years opposed all such shows as prominent factors at agricultural exhibitions, and has advocated making the agricultural interest the main feature. Perhaps our aspirations may have been too high to suit the age.

The fair which provides the most attractions draw the greatest crowds, and receives the most money—which is the main object with many of the directors. The best race course, the largest number of pretty ballet dancers may now be in order. At some of the large shows the interests of the farmers are given a second place. At Toronto last year, on a certain day, many of the best Clydesdales in Canada were called into the main ring. All were brought in, in fine shape and at considerable trouble to their owners. They had not got fairly in when they were ordered out to make room for some frivolous amusement, much to the disgust and inconvenience of the breeders. If our fair associations find it necessary—which we presume they do—to give those yearly attractions, the *rings* should be so arranged that the amusements will not interfere with the exhibition of stock, which, to the farmers, is of the greatest importance. Let the stock have their full share of attention and the rings which belong to them. By giving the attractions a separate place, those who go especially to see them, as many do, will not be bored by stock exhibits, nor will the farmers be annoyed and inconvenienced by the so-called attractions.

In a previous issue we gave you an illustration of the grounds of the Toronto Industrial. Here the attractions are the most extensive and the number of visitors the largest. We also gave you an illustration of the fair grounds at Ottawa which are rendered more attractive, than they otherwise would be, by being situated near the capital of the Dominion.

We now give you an illustration of the main building of the

WESTERN FAIR ASSOCIATION,

situated in London, Ont. At one time American and other travellers declared the show held at this place to be the best purely agricultural exhibit on the continent; and the exhibitors of stock and implements found it one of the best places at which to sell.

FRONT VIEW OF THE NEW MAIN BUILDING OF THE WESTERN FAIR, LONDON, CANADA.

London is situated in a hundred square miles of the best agricultural territory on the continent, whether judged by its timber, live stock, grain or dairy products. The whole territory is supplied with an abundance of pure water; in this particular no city in the Province can equal London, and for hotel and boarding accommodation at a moderate price it is certainly unequalled in America.

A number of the citizens for some years made determined efforts to have the old grounds, which were located in the centre of the city, sold; though strongly opposed, they were at last successful. The present buildings are located about one mile and a-half south-east of their former location. The G. T. R. passes immediately south of them, and stock and goods can be unloaded from the cars on the grounds. The C. P. R. is located but a short distance north, within a couple of blocks of the grounds. The facilities for reaching which are very complete. The G. T. R. running special excursion trains every twenty minutes, or half hour; while the Street Railway land passengers at the main entrance every few minutes. It is also convenient to pedestrians, being only twenty minutes walk from the central portion of the city.

The main building is a beautiful structure, 200 x 80 feet, costing nearly $24,000. All the other necessary buildings are fine and commodious. The poultry hall is the best in the Dominion; the cattle and horse stalls are claimed to be sufficient to accommodate upwards of 500 head in each department. The sheep and hogs are well provided for. The entire cost of the various buildings is over $68,000. Water mains, hydrants, etc., have been put in at a cost above $1,400. The grounds contain 37½ acres, on which many of the forest trees are still growing in groups, affording ample shade, and giving the grounds a very picturesque appearance, making them very suitable for the comfortable accommodation of a larger number of people. Last year about 75,000 persons attended this fair.

The Association is going to spend $2,000 this year in enlarging and covering grand stand, improvements to general offices, enlarging railway platforms, &c. The fair dates are September 20th to 29th, which extends the fair over nine days, instead of one week as heretofore. The appropriation for prizes, attractions, etc., is $25,000. The total value of grounds and buildings, and expenditure this year will be about $132,000.

The new features already arranged for are a grand Indian exhibit by the Indian tribes of Ontario, in manufactured articles, agricultural products, curiosities, etc., and provision is being made for an international bench show of dogs. The management are leaving no stone unturned to make the forthcoming fair the popular event of the year. Prize lists and all other information may be had of the Secretary, Mr. Geo. McBroom.

A Visit to the Model Farm.

The Grangers of Middlesex and Elgin had made arrangements for the 5th ult., to have an excursion to this farm. The day being fine, a free lunch having been promised, and a general invitation to attend extended to all, a large number (1,200 to 1,500) took advantage of the cheap rate to see the farm. Only one half the number of visitors having been expected, those that came late could only be supplied with biscuits, cheese and water, but the president, Mr. Mills, his family and the students did all they could for the comfort of the visitors.

There have been great changes and improvements made in the appearance of the lawn, the garden and the experiment plots. The roads have been widened, and the grounds kept cleaner than we have ever seen them before. Many new buildings have been erected, and more improvements are still being carried on. The cattle were looking well, fat enough for show purposes, and rather too fleshy for profitable breeding stock. The sheep were not much admired by stockmen. The raising of poultry and of dogs, which once received great attention, have now been abandoned. Very little could be learned about the spring crops as they had not been up long; but the fall wheat, we heard, promised to give a good return.

The Hon. Chas. Drury delivered his first official address at the Model Farm on this occasion. He thanked the public for the confidence they had placed in him, by appointing him to his present position, and he hoped they would continue the same in the future by supporting the institution, one to which he strongly urged the farmers to send their sons. He remarked that the eve of the depressed agricultural times was close at hand, for a prominent English stock-dealer had told him that cattle were getting scarce, and if the Canadian farmer continued the judicious breeding of stock all would be well. He hoped to make improvements in the agricultural affairs, and invited friendly criticism, which he considered beneficial to all, and which we hope he will receive

Prof. Robertson spoke in very flattering terms about the College, in which he expressed his contempt at factious opposition, a term used in parliament to denote criticism. He followed these remarks by a very able address on dairying.

Mr. Weld, who was also called upon to give an address, expressed his opinion about the institution, which will be found in another column of this paper.

The large new barn, in which the above gentlemen addressed the large gathering, is a fine building to store farm crops, but is not so well adapted for the purpose it served on the occasion—for even the strong and distinct voice of the Hon. Chas. Drury was sometimes completely lost before it reached his most remote hearers, and even those standing nearer were occasionally unable to distinguish his words which seemed to be drowned in the noise of the sparrows. These birds were no doubt very rude to interrupt the speaker, but perhaps they thought that they occupied a higher position than the human orator. This they no doubt did, and perhaps in more than one way, for the horticulturists considered them one of their worst enemies, and advocate their destruction. They appear to be the most prolific and hardy creatures on the farm, and will no doubt perform their duty (?) faithfully, as faithfully as Mr. Drury can possibly perform his if he does all he has promised to do.

Judging from the opinion of the largest number that attended this excursion, the general impression was a favorable one, particularly among those that listened to the speeches of Messrs. Drury, Mills and Robertson. A prominent farmer, however, said he thought it the greatest humbug ever perpetrated on farmers. A group of farmers asked us what the total cost of this institution had been since its establishment, and also what the annual cost of its maintenance, and the expenses connected with it amounted to. We were unable to reply accurately, perhaps the Hon. Chas. Drury or Professor Mills might kindly give us the response to the two questions.

Address by Mr. Weld a Model Farm.

Hon. Sir, Worthy Master, Ladies and Gentlemen:—It was with an admixture of surprise and gratification that I read the communication of your Secretary, inviting me to accompany you on this excursion, and possibly it may astonish some present that I should be here, as there are some whose acts and words would imply that your humble servant has been the worst enemy your organization or the Model Farm ever had.

We are pleased to be present with you, and believe that such courtesies must tend to good. At this institution the best information should be attainable on all subjects connected with the farm. Every tree, plant, animal and implement should be the best of its kind. The treatment of both animal and vegetable life should be perfect, but the treatment of man should be first considered—honor, truth and candour should be the foundation stone. Light and knowledge should shine forth from the institution so as to cause the admiration of all—cause a quadruple crop of gratitude for its blessings, morally, physically, mentally and financially. The only way for it to attain the high position it should hold is by judicious, fair and impartial criticism. It is to be feared that the man is yet unborn that can or dare do it. Should one attempt to do it, the strong partizan feelings are such, that the friends of the institution would call such a person a traitor. The worst enemies that this institution has ever had or ever will have are those employes whose sole aim has been to obtain grants of money. They have attempted to shield its defects and laud its merits. By its fruits it must be judged; on its merits it must stand or fall! The day is near when the people will demand that it be made self-sustaining. Every farmer should be in possession of such information about it as to enable him to form correct opinions—purchased opinions are valueless. We believe, we may rightly claim, to have done more towards establishing this order, and this institution, in Canada than any other individual, although not at present an active member of the order. Many very excellent men were members, and no doubt some are still in the fold. It is possible that from its trials and adversities it may rise to be of greater utility than it ever has been Possibly to some extent its influence may have enabled the new Minister of Agriculture to receive his appointment, I now allude to the Hon. Chas. Drury, the gentleman to whom you are indebted for this bountiful repast, who was one of the Executive Committee of the Grange, and in his parliamentary capacity has shown himself to be an able debater and a person of great shrewdness. His fluent tongue, affable manner and debating ability make him a person in many ways qualified to fill the position of head of the government's agricultural institutions. He may be a guide and a pillar of strength to your organizations, and may cause utilization and popularization to commence during the present year. Since this institution has been placed under a Board of Control, and that Board consisting of good practical farmers, decided improvements has been brought forward Should your Granger Minister of Agriculture accept and act in conformity with the best Council of this body, he may be enabled to show good results and make this institution what it ought to be a credit to our country, self-sustaining and universally admired—as it is located in the best agricultural Province in this Dominion, and unsurpassed by any State in the American Union. The appointment of one of your members to such a position should stimulate you to greater exertions.

Trusting that both your order and the Model Farm may now receive such an impetus for good, and that your honored representative may have power and strength given to him to act in such a manner that his conscience may be directed by that Power before whom all terrestrial beings must bow.

How to Buy a Horse.

An old horseman says: "If you want to buy a horse, don't believe your own brother. Take no man's word for it. Your eye is your market. Don't buy a horse in harness. Unhitch him and take everything off but his halter, and lead him around. If he has a corn, or is stiff, or has any other failing, you can see it. Let him go by himself a ways, and if he steps right into anything, you know that he is blind. Back him, too. Some horses show their weakness or tricks in that way when they don't in any other. But, be as smart as you can, you'll get caught sometimes. Even an expert gets stuck. A horse may look ever so nice and go a great pace, and yet have fits. There isn't a man who could tell it until something happens. Or he may have a weak back. Give him the whip and off he goes for a mile or two, then all on a sudden he stops on the road. After a rest he starts again, but he soon stops for good, and nothing but a derrick can move him.

"The weak points of a horse can be better discovered while standing than by moving. If he is sound he will stand firmly and squarely on his limbs without moving them, feet flatly upon the ground, with legs plump and naturally poised; if the foot is lifted from the ground and the weight taken from it, disease may be suspected, or at least tenderness, which is a precursor of disease. If the horse stands with his feet spread apart, or straddles with his hind legs, there is a weakness in the loins, and the kidneys are disordered. Heavy pulling bends the knees Bluish, milky cast eyes in horses indicate moon blindness or something else. A bad tempered one keeps his ears thrown back; a kicking horse is apt to have scarred legs; a stumbling horse has blemished knees. When the skin is rough and harsh, and does not move easily to the touch, the horse is a heavy eater, and digestion is bad. Never buy a horse whose breathing organs are at all impaired. Place your ear at the heart, and if a wheezing sound is heard it is an indication of trouble."

Farmers' Clubs.

Dominion Farmers' Council.

[The Dominion Farmers' Council meets in the city of London, Ont., on the third Thursday of every month, at 1 o'clock p. m. All communications should be addressed to the Secretary, A. LEHMANN, LONDON, ONT. This Council has now on hand pamphlets containing its Constitution and By-laws, with an account of its origin, objects, etc., also a form of Constitution and By-laws suitable for Farmers' Clubs, which will, on application to the Secretary, be distributed free to all parties having in contemplation the organization of clubs.]

The regular monthly meeting of the DOMINION FARMERS' COUNCIL was held on the 16th ult., President Anderson in the chair.

COMMUNICATIONS.

A communication was received from one of the amalgamated clubs, asking the Council what method it considered the best for the destruction of potato bugs, and to give them any information regarding the use of Paris green and its chemical effect on the potato.

In reply to this question, Mr. O'Brien said that he had tried the plan of cutting potatoes into pieces, and dipping the newly cut side into pure Paris green, shaking off again as much as could easily be done, and then placing these poisoned baits, Paris greened side up, over the field. This plan had given him very good satisfaction. Mr. Shore had tried the same plan, but had found that one season the bugs did not make their arrival till the potatoes where about six inches above ground, but as a general rule the bugs where there long before the potatoes made their appearance.

Mr. Leitch stated that the smallest quantity of Paris green that could be applied, so long as it killed the bugs was the best. He used one to two teaspoonsful to a pail of water. One of the great mistakes farmers had fallen into, was to allow the bugs to enjoy all the privileges of life after the potatoes were strong enough to successfully withstand their attack. This would allow a large and vigorous army to appear the next spring. He recommended the spreading of poisoned pieces of potatoes on the patch, not only in spring, but also in the fall, after the potatoes had been dug, for there were always a large number of them searching for something to eat at that season of the year, which, if killed, would not be a source of trouble in spring.

Sprinkling the potatoes with Paris green water was recommended by most members, a number of them having tried both the dry and the wet method of application quite recently. One member stated that some extensive potato growers still applied it in the dry state mixed with land plaster. Another member remarked that one year he had a patch of potatoes bordering a field where a neighbor had his potatoes the previous year, and he noticed that near the line fence the bugs were much more numerous than some distance from it. The neighbor had not killed the bugs in the fall. Picking the early bugs, if possible before they had laid their eggs, did not appear to have been profitable, but planting a row extra early, destroying the bugs that appeared on it, which were very numerous, and removing the tops together with all bug-eggs shortly after the remainder of the patch came up, had been tried with very satisfactory results by some of the members. No member had ever noticed the application of Paris green to affect the tuber.

NEW CLUBS.

Moved, seconded and carried, that the Manchester Farmers' Club be almalgamated with the Council. The club was organized near Boylstone, N. S., on the 29th April last.

TO WHAT SHOULD CANADIAN FARMERS TURN THEIR ATTENTION IN ORDER TO BENEFIT THEIR CONDITION AND THE COUNTRY.

Mr. J. K. Little, being called upon to contribute his share to the programme, read the following paper prepared by him for the Council :—

Gentlemen,—This question needs one of wider experience than myself to handle it thoroughly. At the outset I would say that the only true road to success on the farm is on the principle of mixed husbandry. My observations in this direction for several years have brought me to this conclusion. I never could see how a specialty could be made to work on the usual size of a Canadian farm (100 acres). There is not the least doubt that there are men who have made specialties pay ; but it is the exception and not the rule. Now, in laying down a principle it should be so adjusted that all could follow it. I think one great drawback to the farming class of this country is the lack of a press to advocate their rights. It would be one of the greatest benefits to the farmers had they a person or persons who would step forward and advocate their rights and look after their interests, so that the produce of the farm might be allowed to go forward in a legitimate way without being interfered with by rings and combines. It is stated that there are four men in Chicago who control the entire meat production west of that place. It is computed that they take out of Kansas alone the enormous sum of $42,000,000 per annum. And the law of the land allows the produce of the farm to be handled in this manner. The farmers of this country are about 75 per cent. of the population, and they allow the 25 per cent. to govern them. We ask ourselves why should this be? Now, I think this could be remedied. Instead of sending lawyers and doctors from rural constituencies to our legislative halls, let us send practical farmers, and until that is done it will be impossible to improve the condition of the Canadian farmers or our country. The question is one that requires a great deal of thought. There are so many grievances that require a remedy. I would mention here what I think is one of them ; it is in reference to the railroad The country, in the first place, builds them, and then the company turns round and levies such heavy freightage on farm produce as to lessen the farmer's profit.

Gentlemen, in concluding this short article I think we cannot impress this too strongly upon the minds of the agriculturalists, that without a journal to advocate their rights, their case is almost a hopeless one.

After a vote of thanks had been given to the writer, Mr. Anderson opened the discussion. He stated that he entirely corroborated the remarks the essayist had made, and that until farmers learned to judge for themselves, and were not led away by party cry, party feeling and party lies, very little hope remained to better the present circumstances. Farmers had to amalgamate to defend their rights, but this was almost impossible so long as they allowed their judgement to be led away by party politics.

Mr. Bartlett said that the lack of reading among a large percentage of the farmers, gave the combines a very large proportion of the power they possessed. It had almost made his blood boil at times, to hear farmers that had almost every thing to learn, and therefore needed all the information they could possibly pick up, say, when he was trying to induce them to read a little on agricultural questions, that they did not want to have any agricultural literature about the house, for then their boys would sit reading when they should work on the farm.

Mr. Leitch regretted that there was such a difficulty to circulate agricultural papers, this reduced their power to benefit farmers. There seemed to be but little energy and enterprise among the latter, for the cheese buyers in Western Ontario, which were once quite numerous, had dwindled down to three or four. And although a storehouse for cheese and other farm products was much needed in London, there seemed no one willing to take hold of it.

Some of the other members made some very valuable remarks among them, "If farmers read as much on agricultural affairs as on political trash, they would be much better off." But owing to the lack of time—much business having had to be discussed—the discussion was cut very short.

The Council adjourned, to meet again on October 15th.

The Farm.

Hints on Corn and Oats.

Prof. Latta, in summing up his experiments, says ; In corn culture the important things are thorough and deep preparation of the ground and keeping the surface clean and mellow, without breaking the corn roots in dry weather. The kind of implement and the method of tillage are of minor consequence provided the above named conditions are secured.

Barn manure produces a greater increase in yield, and "lasts" longer than commercial fertilizers. If used fresh it should be applied to the corn crop.

Commercial fertilizers have given better satisfaction upon wheat than upon other crops. They have not thus far proved profitable on the College farm. I question whether the returns will justify their uses on soils of average fertility.

The value of a fertilizer depends largely on the crop to which it is applied and on the composition and fertility of the soil, and can be determined satisfactorily only by field trial.

Broadcast and drill seeding of oats have given practically the same yields under similar conditions. On broken or foul ground broadcasting would probably be preferred. The rotary broadcast seeder would not, however, secure a uniform distribution of seed in windy weather. The broadcast seeders that have the drill force-feed are less open to the above objection.

Thick seeding of oats has given the best yields thus far, but a thick stand makes the crop more liable to lodge.

The thicker stands of corn have given good yields, but the corn is reduced in size and the labor of gathering increased thereby.

With an equal stand, cultivated one way only, planting corn in twos or threes has given better results than disposing the kernals singly. It seems probable, therefore, that if corn could be planted in hills of two stalks, say three and-a-half by two and a-half feet apart, and in rows each way so as to permit some cross cultivation, heavy yields of good quality might be produced.

Rotation of crops is the most feasible and effective preventive of insect ravages. There have been no serious insect depredations on the College farm since the writer took charge of it in 1882. A judicious crop rotation equalizes the demands on the land, prevents mixing of crops, increases the yield, provides a variety of feeds for live stock and is thus a means of maintaining the fertility of the soil.

Fertilizers.

NO. I.

We are pleased to see that commercial fertilizers appear to be more appreciated by farmers than they used to be; but as a thorough knowledge of them is necessary to apply them to the best advantage, we fear that without some hints on this subject many will be liable to make grave errors, which would thoroughly disgust them with these artificial fertilizers and tempt them to call those parties selling and recommending them "frauds," and no doubt some of them deserve this name, but many are reliable and respectable business men.

In order to understand the subject more fully it will be necessary to examine the nature of fertilizers in general before entering upon the uses and modes of application of the various substances used to add to the store of soil fertility.

It has been found by experiment that ten elements or ingredients of plant-food are necessary to sustain plant life, and that seven of these are in sufficient quantities in most soils. One or more of the remaining three, viz: phosphoric acid, potash and nitrogen, is, however, frequently deficient and needs to be supplied before vigorous plant growth can take place. The phosphoric acid is that substance which gives the principal value to bones, superphosphate, apatite, &c.; potash to ashes, muriate of potash, sulphate of potash, &c.; and nitrogen, to the various vegetable and animal substances, compounds of ammonia, Chili saltpetre, &c. Now it is evident that if only one of these is wanted, the application of a complete fertilizer (like farmyard manure, &c.,) containing all of the ingredients is poor economy, unless such fertilizers can be procured very cheaply, for the constituents not required would be lost to all practical purposes and sometimes worse than lost, for instance, too large a supply of the nitrogenous or organic substances would cause a too vigorous and stimulating growth of straw, of a coarse, weak character, and retard the production of grain or seed, and the superabundance of the other ingredients have their specially injurious, though not so marked, effects. For this reason it is frequently advantageous to be able to apply one or two of them separately. Those substances supplying these are called special fertilizers, while those supplying all the ingredients are termed general fertilizers. It has now been pretty clearly shown that so long as all the ingredients of plant food exist in their proper relation in the soil it is pretty difficult to have a farm too abundantly supplied with them. But the larger the store of available plant food the greater the necessity of having the proper relation existing between them, and, therefore, the greater use for special fertilizers. This explains one of the reasons why they are more favorably received in countries in which the land is kept in a high state of fertility. By judiciously compounding special fertilizers greater crops can and have been obtained than by the use of the best farmyard manure.

Although numberless valuable experiments have been made, yet, owing to the variations in soil, climate, season, crops and fertilizers, it is impossible to definitely state what fertilizer should be applied to a certain soil to give the best results without making some actual experiments on that soil, and it is, therefore, advisable that all farmers, before using special fertilizers to any considerable extent, should experiment a little for themselves. The experiments that have been made will, however, assist them in making a fairly accurate decision on what they should try, and in what manner it should be applied.

The solubility of the plant food a substance may contain is an important factor in estimating its value. As a general rule the more soluble the more valuable the fertilizer is. The solubility may, to some extent, be estimated by the source from which it comes. Those from the animal or the vegetable kingdom being generally the more soluble.

Sometimes a soil may contain all the ingredients of plant food in sufficient quantities, but, owing to the combinations they are in or the mechanical conditions of the soil, they are not able to support plant life. For these cases it is generally more profitable to assist in the transformation of the locked-up foods than to supply them to any considerable extent in the form of fertilizers; in fact, if the unproductiveness is due to the improper mechanical condition of the soil it would be almost folly to do so Unless the land is properly drained the fertilizers cannot do their duty.

In the application of any of the concentrated fertilizers it is of the utmost necessity to have them evenly and thoroughly mixed with the soil, and for this purpose it is necessary to have them ground as fine as possible (with the exception of superphosphate when applied on sandy soil). The more concentrated they are the more care must be taken in their distribution, and in order to accomplish this it is advisable to mix them with some other substance, such as fine earth, muck or sawdust before sowing them; ashes and lime, which are sometimes used for this purpose, are generally not so suitable. After being sown they should be thoroughly mixed with the soil by cultivation or harrowing, the former to be preferred, as it is not desirable to have the fertilized soil at the surface but rather a few inches below it.

A light clay loam gives generally the best and safest returns for the fertilizers that may have been spent on it, and a light soil is preferrable to a stiff clay; on the latter the very utmost care must be taken with the distribution. They do not show very favorable results on poor, run-down soils, and in no case should they be applied on sour or cold soils. In short, although they give very good returns on well-cultivated, well-drained, well-managed fields, they are not profitable investments on farms that are the exact reverse to this.

(To be continued.)

Every time you worry your horses you shorten their time of usefulness.

The date on which several important exhibitions will be held, with a short review of their prize lists, will be found among "Stock Notes."

Professor J. W. Sanborn maintains that ensilage has no more feeding value than the same material would have possessed had it been dried and housed.

The Maine Board of Agriculture held 27 institutes last winter costing $1,307, or an average cost per meeting of nearly $49. How much do our institutes cost?

Professor E. M. Skelton demonstrated at the Kansas Agricultural College that cooking corn damages it for pig feed; and that the cob and kernels ground fine together is worth more, pound for found, for steers or swine than clear corn meal.

When Should Wheat Be Cut.

The best time to cut wheat is a point of great importance to the farmer. The exceptionally high prices of Minnesota wheat in the markets is largely due to the dry atmosphere of the section in which it grows. A kernel of wheat consists of the outer covering or bran, the interior or starchy portion, and the embryo. Under the microscope the bran is seen to consist of five layers. Next to the inner surface of the bran is a series of regularly formed cells containing the gluten. Interior to the gluten cells are the starch cells. The most valuable constituents of a grain of wheat are gluten, starch, and a small amount of phosphates. Gluten forms flesh; starch is a heat producer and forms fat. The per cent. of gluten varies in different kinds of wheat. Ohio wheats contain from ten to fifteen per cent, while starch may constitute from fifty to sixty per cent. of the kernel. Gluten is more nutritious than starch, its composition more nearly resembling the muscular tissue of animals.

Examinations at different periods of the grain formation, have revealed the fact that the starch forms several days before the gluten is fully developed. When the grain is in the milk the gluten cells are scarcely distinguishable. The next stage shows the wheat in the doughy state, the starch granules crowding the cells, while the gluten cells are small and somewhat irregular, when the gluten cells are entirely full, and the kernel is perhaps shrunken from the drying of the starch.

Aside from the value of gluten as food, it has valuable properties, in combination with starch, for making bread. Wheat containing a small amount of gluten is softer, and will make much whiter flour, for the gluten imparts a yellowish shade. But, if flour contains too little gluten, it will not rise, even if yeast be added. Gluten (like glue) forms, with water, a tenacious paste, so that when fermentive action begins in the dough, the gluten forms a cell around the carbonic acid gas, and retains it, causing the dough to rise. When baked, such bread is very light and sweet, though not as white as when little gluten is present. Many farmers are induced to cut their wheat too soon, because the kernel remains large and plump, from the moisture contained in the starch. When containing a large amount of gluten it will appear shrunken, because the gluten readily yields its moisture, but will be far more valuable as food.

Repeated experiments have failed to show any increase, either of starch or gluten, from day to day, after wheat has been cut. The only rule we can suggest, which may apply to varieties, is this: delay cutting as long as is compatible with avoiding waste in handling. When cut, secure it as promptly and as perfectly as possible. To make the best bread, a good, sound, glutinous variety of wheat must be sown on sound, dry land; it must get fully ripe before it is harvested be secured without damage, and must be properly ground.—[Ex.

Practice on the farm the Darwinian law of "the survival of the fittest." Kill off the scrubs and substitute thoroughbreds; burn up the old horse-killing, soul-destroying implements and substitute something modern and effective. Stop reading trash which debilitates the mind, and displace it with something strengthening. Then may your days be long in the land and full of joy.

PRIZE ESSAY.

How Farmers Can Best Protect Themselves Against Combines.

BY JAMES LAIDLAW.

In order to discuss how farmers can best protect themselves against combines, it will be necessary to come to some general understanding as to what combines are, what purpose they are intended to serve, what are the means adapted to reach those ends, and, having enquired into this, to consider what steps, if any, can be taken with a view to protect farmers and their interests against their machinations.

A Committee of the House of Commons at Ottawa, during the last session, has done much to show to the citizens of Canada that their exists among many branches of trade combinations formed for purposes which we shall endeavor to show are unjust and possibly illegal. A Committee of the Senate of the State of New York has performed a similar duty for the citizens of the United States, and the finding of these Committees has not been such as to give to the average citizen a very cheering and encouraging prospect. In the first place then, what is a combine? It is a combination of many competing concerns under one management which by regulating the amount of production endeavor to create a monopoly, and by this means increase the price at which the goods can be sold. An eminent jurist in England has said that the effects of monopoly are threefold. First, an increase in price; second, a decrease in quality; and thirdly, it tends to the impoverishment of the artisans engaged in the manufacture of the articles, and of the consumer generally. The system of pooling among railway companies is a form of combine, but which has not been so successful as it was supposed it would be. True, there are instances in which for a time this form of a combine has been successful, but ultimately some one has secretly violated the agreement, and refusing to make compensation for it, appeal was made to the courts, but they refused to acknowledge the rights of the combine to enforce compliance to its by-laws by its members.

One of the principle causes which leads to the formation of combines is over-production, the natural result of this being to lower prices, and the manufacturers interested are left to choose one of two plans, either to continue the war of prices, until the smaller and weaker concerns give way and a few large ones rise out of their ruins, or they must combine, limit productions, and control prices. They generally choose the latter. Another cause in some branches of trade is the high tariff or protective duties placed upon goods coming from foreign countries. Perhaps the removal of duty on goods passing between Canada and the United States might not remove the danger, as our combines would simply be swallowed up by the larger combines or trusts of that country, but if free trade existed between all countries it would be almost impossible to combine all the manufacturers of these different countries.

The principle motive in combining is, of course, self interest, or a desire to make money faster than heretofore, or than their fathers did, no matter what means they must adopt in order to gain their ends. They have either forgotten or do not wish to act up to the advice given by the poet Burns, "To gather gear by such means only as are justified by honor," and to have taken that of the old woman to her son when starting out in life, "Get a' the money you can, John, get it honestly if you can, but get it anyway," as being better adapted to their case.

Among the first plans of forming combines was that of contracting, whereby all parties agreed to sell at a fixed price, or through a common agent. Perhaps the most highly perfected form of combine exists in the modern "trust," which takes the management and control of the different places of business out of the hands of the competing parties who have been cutting prices, and places them in the hands of "trustees" elected by those interested, who hand over to these "trustees" the stock of their concerns, and receive in lieu thereof "trust certificates" similar to shares, as representing their interest in the joint corporation. These trustees have full power to close mills, limit production, consolidate, and centralize as they see fit. The parties holding "trust certificates" receive their profits from the general fund kept by the trustees, and not from their own establishment. There are other methods of combining, differing only in the details of arrangement. In some the trustees give the owner a mortgage for his property, and certificates for the good will of the business; others lease to the trustees, and others agree to sell all their product to the trustees at a fixed price. As to the loyalty of the combines or trusts, nothing will be said here, more than just to mention that the courts in England have said, "That to obtain the sole exercise of any known trade is to create a monoply, and against the policy of the law," and courts in the United States have said, "That an agreement in restraint to trade, and to increase the price in the market of any article of prime necessity, is illegal and void."

In order to understand fully the workings of these combines or trusts, it will only be necessary to give a short account of a few of them to show their financial strength, and the measure of success which they attained. The pioneers in the art of combining are the "Standard Oil Trust," followed closely by the "Cotton Seed Oil Trust," both of which have amassed millions by their unrighteous dealings and exactions, and have become so powerful as to almost defy the courts, or any other authority, that would seek to enquire into or place a limit to their transactions. Prominent among them may be cited the "sugar combine," a combination of wholesale grocers and refiners in Canada, which has laid down certain rules and regulations, as well as fines and penalties, for infraction of these rules, in which they practically refuse to sell sugar to non-members, by forcing them to pay a higher price per pound, and take brown and granulated in such proportions as to simply shut them out of the business. In the United States sugar refiners, representing 85 per cent. of the sugar refined, formed a trust with $45,000,000 of capital, and as a result of this sugar has risen fully one cent per pound during the year ending February, 1888. It is estimated that the "sugar trust" of the United States during the year 1887 made over aud above their fair, legitimate profit, an additional one of $30,000,000. In the city of New York there exists a trust which effects very materially the Canadian farmer, known as the "meat trust." That city consumes annually about 2,000,000 sheep and lambs and 250,000 calves, besides an immense amount of beef and pork. These are sold by farmers and shippers to brokers, and by them to butchers in and around the city. The brokers, who handle sheep, lambs and calves with a view to enhanced profits, formed a "trust," and the butchers in self-defense quickly followed suit. The butchers agreed to buy from brokers in the combine only, and they in turn to sell only to combine butchers. If either butcher or broker deals with others they are liable to a fine of so much per head of stock bought or sold, to be paid into the funds of the combine. Almost all the brokers and butchers in the city have been forced into it, those refusing to do so having almost invariably been ruined. The difference between brokers' charges on stock sold in the city, as compared with what it would be were there no combine, is $250,000 higher. The meat to the consumer is raised, while the farmer's price is lowered. There exists also a "milk trust," controlling and affecting the 650,000 gallons of milk consumed daily in New York, just in the same way that it does the meat. The farmers who supply a large part of the milk organized, and contributed $20,000 to fight the trust, but after a year, having spent all the capital, they quit. Combines have been formed in many other branches of the trade, all having the same end in view, but it will be needless to add to the list here, as enough has already been given to show the methods of combinations and the results that follow. It now remains to devise some means of counteracting these, and doing something to protect the interests of the farmer and consumer.

There is an old saying, that we must fight the devil with his own weapons, and to follow out this maxim we would have to fight the combiners by combining. But is this possible so far as farmers are concerned? I think not. Methods have been devised, whereby it was supposed that the farmer could successfully do away with the middleman, and deal directly with the manufacturer, through the agency of the Grange and other societies of a similar character; but this system was not so successful as its promoters anticipated, and while there are still Granges in existence, yet many of them in this section have largely curtailed the work which they undertook, for the reason, I suppose, that their results have not been so satisfactory as it was expected they would be. They lacked that bond of union, which is so necessary, the want of which was the weak link in the first combines or pools, and, having which, is the secret of success in the trust, obtained by depriving the parties forming the trust of the power to withdraw their assent to them Without this power combines of manufacturers failed, and surely success could not be looked for in a case in which, from a numerical standpoint it would be much more difficult to arrange and manage than when fewer were interested. Would it be possible for farmers to combine in such a way that the directors or trustees would have power to say how much grain, roots or hay a farmer should grow or sell? or how much he should feed on his own farm? how much stock he should raise, fatten and sell? and at what prices he should dispose of them? at what season of the year, and from whom and to whom he should buy and sell all these articles? And yet, it is only by such means as these, that is, by placing almost unlimited power in the hands of the trustees, that the combines and trusts of which complaints are made, have succeeded. It is simply impossible for farmers to combine in this way, and some other form of protection must be looked for.

At the close of the last session of the House of Commons at Ottawa, the report of the Committee on Combines gave rise to the following motion, which, owing to its lateness, could not, however, be discussed sufficiently to take the form of a statute: "That any combination created for the purpose of limiting the production and enhancing the price of any article of general use, be a fraud, or misdemeanor, and punishable by law as such." Some similar law was lately passed by one of the State Legislatures, and it seems to be the only feasible and practicable scheme that has as yet been devised to meet the difficulties of the case. Let it once become known, that parties forming combines or trusts for such purposes as these, are rendering themselves amenable to the laws of the land, and they will begin to look at them in a different light. It may possibly be a matter of some difficulty to get such a law placed upon the statute book, from the fact that, as we know, these wealthy corporations, or combines, or trusts, have powerful and effective means of dealing with even the Legislative bodies of the world, and add great strength to a party during election contests, by supplying the sinews of war, or as it is now more commonly called "boodle." But the farmers and the people generally must see to it, that in electing their representatives, they elect only such men as are above suspicion, and whose character is beyond reproach, men who will deal fairly and justly with all men, and all parties and interests, who have intelligence enough, and are sufficiently well posted on the principles of government, and the laws of nations, to enable them to vote intelligently on all subjects claiming their attention. It is in such terms as these,

and under such circumstances that we realize the truth of the poets words :—

"The world needs men, a time like this demands.
Strong minds, true hearts, pure faith and ready hands;
Men whom the lusts of office does not fill;
Men whom the bribes of office cannot buy;
Men who possess opinions and a will;
Men who have honor, men who will not lie;
Men who can stand before a demagogue,
And damn his treacherous flatteries without blinking.
Tall men seen crowned, who live above the fog,
In public duty, and in private thinking."

With such men as these in our council chambers and legislative and parliamentary halls, backed up by a free, fearless and independent press, the avowed champion, exponent and reflector of public opinion, with the courts of our country presided over by judges, honest, honorable and conscientious, lies the only hope of the farmer in getting justice and having his rights respected. The fight may be long and bitter, but to use the words of an American writer on this question, "Sooner or later it will feel the heavy hand of the people laid upon it, and when that time comes it will come with a power not to be withstood. There will be no trace of the monopoly left."

Fall Wheat Failure and the Best Means to Remedy it.

BY THOS. ELMES, PRINCETON, ONT.

Perhaps never in the annals of our country has this subject been of such vital importance as at the present. Spring wheat has been such an uncertain crop the past few years that it has almost been abandoned by the Ontario farmer, and fall wheat has during the same period fallen far short of an average crop, until this season it seems to have reached the climax, for reports of serious damage to this important cereal have reached us from all parts of the Province, and the loss to the country will, no doubt, be many millions. Owing to the remarkably dry weather during seeding time last fall the plants attained but little growth of either top or root, and entered the winter in a very weak state, but the latter was very favorable to them, and had the spring opened warm and growing, no doubt we would have had an abundant crop, but the trying weather in April and the early part of May proved too much for the already weak plants, and gave such unfavorable results that many are crying out, "Let us forsake wheat raising altogether." This will never do. Wheat has been, and always will be, we hope, a most important source of our country's wealth, and, although the shadow hangs over this cereal at present, let us not be discouraged and fold our arms, but let us arise like men, and remove every obstacle, and use every means to remedy our misfortunes and mistakes of the past.

Discard the thought that the time will ever come when any part of our fair and fruitful country will be obliged to buy their bread. There are many things, it is true, over which we have no control, but there are a vast number of others which we can master and with them extensively counteract other evil effects. We propose to point out a few of the best means we can employ to ensure success.

First, what can we do in the preparation of the soil? There is no other crop that suffers so severely on fields requiring drainage as fall wheat. The injurious effects are felt alike in fall, winter and spring. But underdrainage is not sufficient, the land requires surface drainage as well; water furrows must be made to carry off immediately the water of winter and early spring, when it is impossible for the underdrains to act on account of the frozen state of the ground, and the water would therefore remain until it had done permanent injury to the wheat. The land should be ridged, say five to eight yards wide, so as to rapidly convey the water to the water-furrows. Of course it is thoroughly understood that the soil should receive an ample supply of barnyard manure and cultivation sufficient to clean it of all grasses or noxious weeds. Unfortunately in doing this we get our land too fine, which has an injurious effect on the wintering of wheat, as it is apt to run together, become hard and smooth and kill the plants. This may be remedied to a great extent by passing the roller over the land after the last plowing, directly after a good shower, not of course when the land is too wet. Then after it has dried put on the cultivator, and the trouble of the running together of the soil will be obviated to a great extent. I think the experience of the past few seasons proves that we generally sow too late, for the plants do not attain that strength necessary to pass through the trying ordeal that lies before them. The early part of September is better then the middle, although this may vary a little in different localities.

Now I shall make a statement that no doubt will be questioned by some, but after careful observation and experiments, I am convinced of its truthfulness. It is that a vast amount of our best fall wheat land is being ruined by salt. Land suited more particularly for wheat is also well adapted for barley, which, in order to grow a good, bright, heavy sample, is heavily salted. The oat and turnip crops also receive heavy dressings of salt. This is continued year after year until the soil is full of salt, the direct enemy of fall wheat and its best friend, clover. The effect of salt is to attract dampness and cool the soil; hence, soil that has been heavily salted for years when sown to wheat is almost sure to be a failure, because salt makes the ground too cold and clammy for the young plants in fall, and materially increases the intensity of the cold during the winter. Then when the snow disappears, ground that has been salted will draw dampness and thaw four times as deep as that without salt, and this occurring daily forms a slime on the surface, the soil runs together and much of the wheat perishes. Then again, when the first early growing days of spring come, when the plants require all the soil as warm as possible, the salt keeps it several degrees colder than it otherwise would be, and has, therefore, an evil effect on both wheat and clover.

But I must leave this question and pass on. We can do much to regulate the temperature of early spring (for our wheat) by draining the swamps and low lying lands surrounding our wheat fields. There is a rapid evaporation going on during the day from shallow water or wet lands, which, when night comes on, chills the atmosphere and descends in frost upon the tender plants endeavoring to spring into life. Later in the season this is also a fruitful source of rust, which so often devastates our fields.

The sooner we consider fall wheat a crop that requires special care and cultivation, and indeed perhaps a nursed crop, the better for ourselves and our country.

In my next article I will give the results of my experiments with fall wheat, as well as the results of new varieties sent out by others and myself into nearly every county in Ontario, as I am daily receiving reports from leading farmers who have tested them this season in their different localities, and by this means we hope to arrive at which are the best, hardiest and safest varieties to sow in the future to give us better results.

Regularity of Hours for Farm Work.

BY J. LAIDLAW.

(A competitor in the Farm Drainage Essays.)

In these days, when we so often hear of the members of Trade Unions and other labor organizations demanding shorter hours and increased pay per hour, intelligent and thinking farmers are led to ask themselves the question, "How do the wages and hours of work for farm hands correspond with those of the laboring classes in towns and cities?" And the answer comes almost intuitively: Lower wages and longer hours. And yet we have often heard of men who had been engaged in work in towns and cities, but have left it to engage in the country, where first-class farm hands say that in spite of the lower wages they can save more money in the country, where there is less temptation to spend it, than in the city. Receiving their wages every two or three weeks, they never seemed to have enough at any one time to lay it away and consequently it is spent, whereas in the country they generally get it in a "lump sum" at the end of the term, and are more apt to invest it judiciously. There is no doubt that the average farm hands are worked too long hours to take that interest in their work which it deserves. The answer given by the boy when asked about the number of hours he worked daily is perhaps in the mind of many, viz: "That they worked sixteen hours a day and did chores the rest of the time." This may be somewhat overdrawn, but it contains more truth than poetry. It is unfortunate that it should be so, as well as an injustice and a wrong to those affected by it. Have the young men in the country no talents of such a nature as to require a little time to read and study in order to develop them properly? No pleasures which they wish to enjoy, or friends with whom they may wish to meet for a little innocent amusement and recreation? Certainly they have, but all are not at liberty at such an hour to have a little time at their disposal to carry out their desires, and the means of instruction and study are not always as available as in the towns and cities. Those who have had these advantages in their early years are in nine cases out of ten the most advanced and intelligent farmers in the country, are a credit to their profession, as well as being able to take a place in the legislative and deliberative bodies in the country, to go out as the accredited representative of their fellow farmers and fellow citizens, and by their business ability, common sense and judgement, uphold their rights and obtain justice in the cause which they represent. I do not mean to say that it is impossible to be successful without the benefits of a good education, but other things being equal it is a decided advantage. In fact we have many cases of such men who have been more than ordinarily successful, have amassed a large amount of money and have been able and capable public men. But these exceptions only prove the rule; and when we consider and compare what these men have done, and what they might have done under other and more favorable conditions, viz., a more liberal education, which would have developed their reasoning and observing powers, and enabled them to compare the different branches or systems of farming in which they were engaged, with a view to drop those not so favorable and profitable, and turn their whole energy to those best suited to their local con-

ditions and yielding the greatest return, we can only admire all the more the grit and energy which has enabled them to achieve so much under such unfavorable conditions. It is an admitted fact that ten hours a day is enough for the teams engaged in farm or any other work, and if enough for the teams, then why not enough for the men who drive the teams. It is an easy matter to arrange the hours in such a way, that after allowing sufficient time for the teams to feed at noon, they can quit work at six or half-past six in the evening. After this a little time spent in caring for the horses, to make them as comfortable as possible, will, or should, complete the work of the day. I have read somewhere (can't remember where at present), of an attempt having been made to so arrange the working hours to allow the teams and men four or five hours rest in the heat of the day, by working the ten hours early in the morning and late in the evening. But it was not successful, as it was found that the horses were not so fit for their work by this arrangement as when allowed only sufficient rest at noon to feed, and the remainder in one unbroken period at night. Another good result that might perhaps follow the adoption of a system of shorter and more regular hours is, the prevention of so many of our young men leaving the farm What wonder that young men raised on the farm get tired of its long hours and heavy work, when they go into town and see those of their own age, having neither more ability nor intelligence than they, handsomely dressed, and looking decidedly neat and tony, getting away from their work at six, with liberty to go where and when they please so long as they are at their places ready for work in the morning? If the young men in the country were only asked to work such hours as these, and after that could do as they desired, they would naturally take more interest and pleasure in the farm and farming. After the work was through they could spend an hour or two in study or reading the newspapers to keep posted on the general affairs of the world and the current events of the day; or if they choose to spend the time on their team, in breaking a colt, in doing a little gardening, or in any way similar to this, well and good. Don't deny them anything within reason in which they take an interest, so long as the tendency of that interest is to create a love for the farm and farming. There are, of course, times at which it is justifiable to work until dark and later if possible, viz: in haying or harvest, when a large amount of hay or grain has been cut and is ready to be hauled in and rain is threatening. Any man who would refuse to work extra time under such circumstances as these, is, in the opinion of most men, worse than a fool, in thus refusing to assist in securing safely those good things which Providence has so generously bestowed. A day given to farm hands to attend a fair or exhibition, or any institution of an interesting or instructive nature, is something almost every man would appreciate, and he must be slow indeed to learn who does not pick up some bit of information, or get hold of some idea that will be useful both to himself and his employer. Were some such measures as these adopted greater harmony would often exist between the farmer and his men, and as a result of this, it might lead to longer service which is very much to be desired both by employer and employe.

Don't sell your ashes or bones, they are of more value to you than the money you get for them.

How to Eradicate Thistles.

Thistles are thought by some farmers who have come in contact with them, to be unconquerable, says a correspondent of the Farmers' Review. The encumbrance to the ground in a growing crop absorbs in many cases the entire profit of the field. Nothing but a systematic and determined intelligent effort will eradicate this pest. I speak from knowledge founded on experience. Ten years ago I commenced to work a farm in Western Ontario. This farm had been rented for a number of years, and, as is usual in such cases, the object of the tenant was to get as much out of the land as possible without much consideration of future returns or condition. Taking possession in the fall, I found in some of the fields from one-third to two-thirds of the grain crops (oats and wheat) were not harvested, having been so choked out with the thistles that they were not worth cutting. This condition of things, although by no means uncommon, would soon lead to disastrous consequences. If 25 per cent. of the value of a crop is the normal profit over working expenses, and over 25 per cent. is weeds or thistles, it could not be expected that the bank account or capital stock of the farmer would increase very rapidly.

My plan was to run a gang or three-furrow plow over the ground directly after harvest, plowing only 1½ to 2 inches in depth, and then harrowing well and leaving it until later in the autumn or spring before using the large plow. This light plowing, covering the seeds of thistles and other weeds, induces them to germinate, and the next plowing kills them; whereas, if turned under with the large plow first, they either grow through to the surface in time to appear in the next crop or lie dormant in the soil, to grow when the next plowing takes place. By this method of shallow plowing after harvest, and a good deep plowing the following spring, a crop may be expected if the land is not very foul.

The process of cleaning a very dirty field is one requiring courage, perseverance and numerous other virtues. It is expensive, inasmuch as a complete summer fallow is required the first year. The advantage claimed for the summer fallow is that it furnishes employment for men and teams at odd times when other work is not pressing. Three plowings and nine harrowings is the general rule, but may be changed to suit different circumstances and seasons. I have always objected to bare fallowing when avoidable, on account of the loss from the soil by evaporation of valuable elements of plant food when exposed to the continual rays of the sun without any intervening green surface. A rapidly-growing green crop, such as buckwheat, rape, peas or clover, may be sown and plowed under with the additional advantage of ameliorating and fertilizing the land. When it is desirable to prepare for a crop of fall wheat, green manuring is not always practicable, if the object is to kill thistles also. This is where good judgment is required, and the farmer must know the condition of his fields and arrange his plans beforehand.

If the land is well summer-fallowed for one season the thistles will not be effectually killed out; they will be pretty well weakened, however, and a good and comparatively clean crop of grain may be secured the first year. With this crop the land should be seeded down. Two-thirds clover and one-third grass seed is a good proportion to sow. Variety of kinds is preferable in most cases. The first crop after seeding will be principally clover hay; the next and succeeding crops principally timothy. It is in mowing the grass that thistles are killed. They do not mature their seed in time for haying, but ripen with grain crops, fall wheat sometimes excepted. Nothing is better than grass to check their growth, while grain growing is favorable to their development. After two or three mowings the sod should be broken up and two or three crops of grain, corn or roots may be taken. A hoed crop of corn or roots is a good preparation previous to again seeding down When the ground is put into condition for seeding to grass, the great difficulty of thistles is removed. The same remarks will apply to the majority of weeds.

Should Potatoes be Hilled?

A number of potato growers would not find the least difficulty in answering this question. They would say:—"To be sure they should. Why, old Mike Fagen told me, when I was quite a lad, 'Hill the 'taties well, John; the larger and higher you make your hills the larger the crop of 'taties will be.'" But if we proceed to question them about the "whys" and "wherefores" they are unable to answer. They have never tried any other way than that which their fathers practiced before them.

The writer remembers quite well that when a boy on the farm he thought one day when told to hill a field of potatoes, "Well, now, why is this done?" and not finding a satisfactory answer in his mind he asked for permission to leave several rows at the end of the field unhilled to watch the results but was not granted the privilege, the boss replying, "Why, that would be a foolish thing; it would spoil that part." Next year we, however, received permission, and proved that hilling was not only unnecessary but injurious; for those hilled gave over 20 per cent. less than those that were not. The experiment was repeated the next year on a larger scale with like results. These tests shakened the farmer's confidence in his old and well tried method of hilling, which he gave up entirely after a few additional tests. All the experiments of this kind we have seen or heard of gave the same results, viz., a difference of 10 to 50 per cent., and even 100 per cent. in advance of those hilled.

Now, what are the reasons for such an extraordinary increase in the returns of a patch not hilled? The most important of these is that the moisture of the ground is better preserved when it is not ridged up; the practice of hilling does not only expose more surface to the sun's heat, but the centres of the rows being hard, owing to the removal of the loose earth on the top, evaporate a larger amount of water than the same surface would were it covered with a loose mold. (For further explanation read article on *Cultivation*, p. 170, June issue, this year.) The rain falling on such a plot, being shed by the hills, is also lost to some extent. The undue mutilation of the roots, caused by the hilling, is another disadvantage, and still another is that explained by an agricultural week y on the other side, viz., as the tubers will always grow at a certain depth, hilling them after they have commenced to form will cause new roots and tubers to be thrown out, which, drawing away the nutrition from those formed below, will cause a crop of a larger number of smaller potatoes.

The advantages for hilling are few indeed, if any, on soils properly drained. It may assist in keeping up the foliage and prevent some potatoes from becoming green on plots on which they have been planted too shallow, and may assist in digging them. On cold, wet soils and in excessively wet seasons it may, to some extent, prevent rotting, but that is all.

Try the experiment and increase your potato crop this year, by not hilling them, or at least not hilling them so high as it is customary to do.

Stock.

Jerseys, Dorsets and Clydesdales.

Glen Rougé Farm, of which Capt. Wm. Rolph, of Markham, Ont., is the proprietor, is situated 22½ miles north-east of Toronto, on the Midland Division of the Grand Trunk Railway.

For a number of years the herd of Jerseys kept here has been one of the best in the Dominion. At the present time it comprises forty-five head, and with the exception of a few imported cows, are of the St. Lambert and St. Helier families. Mr. R. is a believer in line breeding, and practices it in his herd. The bulls now in use are Canada's John Bull 5th, 20092, a grandson of Mr. Fuller's famous cow Mary Ann of St. Lambert, which is claimed to have made 36 lbs. 12¾ oz. of butter in seven days. This is a very promising young bull, Mr. Rolph bought him at Mr. Fuller's recent sale for $1,210; he was got by Canada's John Bull 3rd, 8388. The pure St. Helier bull Otolie 17219 is also in use here.

The milking cows now in the herd number fifteen, all pure Jerseys, and, judging from the financial returns they must be very satisfactory to their owners. Last year the cows made an average return of $112.50 each; besides keeping a family of eleven in butter, cream and milk. All the calves are raised on the skim milk; only the cream being sold, which is sent to Toronto daily. There is a very strong and growing demand in Toronto for cream, especially that from Jersey milk, and, according to Mr. Rolph's views, there is no likelihood of this business being overdone,—at the present time a sufficient quantity is not to be had. Mr. R. receives $1 per gallon for all his cream. He raises it by the Cooley cabinet system, and makes it a point to keep the milk as cold as possible. For this purpose he uses large quantities of ice. After setting twelve hours he removes the cream, which pays him better than letting it remain unskimmed for twenty-four hours. He allows all his calves new milk for the first two weeks; the next two weeks he gives them half new and half skimmed. After this age they get skim milk, and as soon as they begin to eat, are fed plentifully on such suitable food as is convenient, according to the season. The neighboring farmers have used his stock bulls for some years, but the demand for grade Jerseys is so strong that but few remain in the neighborhood. They are principally sold as young cows to city buyers, at prices ranging from $50 to $100.

For the last three years, the enterprising owner of this establishment has been importing and breeding Dorset Horned sheep, and as this breed is unknown to many of our readers we will describe them. They are horned, pure white, longer and taller than the Southdowns, are very active and rather shy. They appear hardy, but those we have seen have not the substance possessed by many of the other breeds, yet Mr. Rolph, who has been a breeder and importer of several of the other varieties, has determined to breed Dorsets only.

He intends to keep 50 breeding ewes, and as he believes the best Dorsets have not been brought to Canada, he will import this season a large flock from reliable English breeders. He informs us that his ewes will successfully raise two crops of lambs each year; dropping one lot in November and the other in May. He finds that when managed in this way they wean their lambs at three months old. At six months old these lambs will weigh 100 lbs. and over. The females when one year old will weigh from 160 to 180 lbs., and when mature about 180 to 225 lbs The yearling rams, he claims, will weigh about 200 lbs., and the aged rams about 250 lbs. Three years ago three yearling wethers of this breed, which were shown at the Royal Show of England, weighed 890 lbs. He also says that a flock under ordinary care will average about 6½ lbs. of wool per head, which is of superior quality, much liked by woolen manufacturers. It is quite as fine as that obtained from Southdowns, and is longer and stronger in the staple. In a good specimen the body is well and densly covered with wool; yearlings will shear 10 lbs., on an average—the wool in all cases unwashed. The chief advantages claimed for these sheep are, that they may be bred so as to drop their lambs at any season desired. All farmers know, or should know, the profit that may be derived from very early lambs, which are fit to sell at Christmas or Easter. They are also very hardy, and need little or no extra attention during the lambing season, and endure cold at all times. They are well spoken of by Mr. Jno. Hope, of Bow Park, and are called in some parts of England "rent-payers."

Besides the Jerseys and sheep, Mr. Rolph has a very nice stable of imported Clydesdales, and a few Shetland ponies. Among the former are the mares Lady Lorn, 2294, and Kate Murdock, 2042, which were the first prize draught team at the last Toronto Industrial Exhibition.

Cattle and Sheep for the Shows.

A writer of large experience in the Mark Lane Express, discussing the effect of high feeding for the fairs and shows, gives some of his own experience that may be worth considering. He says: As one who has had yearly practice with both sheep and cattle for thirty years, allow me to give my experience—not an opinion. We will take it for granted that the male is never too fat as long as he is able for his work and is a sure stock-getter. In fact, I would always prefer a sire well fed from his youth upwards as the animal calculated to produce the best and most vigorous stock. The controversy therefore centers in the female, and I hold that few cows or heifers can be made to present show yard form without it proving predjudicial to themselves and their offspring. A cow after she is full grown will stand making up without further harm than shortening her years of breeding, but heifers fed to excess as yearlings and two-year-olds seldom do the herd much credit in after years. No doubt there are notable exceptions, which may be pointed to by those who advocate the contrary, but as a rule, the fattening up of females has a decided tendency to make them bad milkers, barren, and short lived. I have not found the same to be the case among border Leicester sheep. In preparing for showing I have, like all other exhibitors, put on just as much flesh as could be got on, and I have never found the fed yearlings to run barren, to be bad milkers, or to break down in any greater proportion than the other ewes of the flock. Some years ago I had a pen of highly-fed yearlings which were first at the Highland Society show. They were fed right on, as much as would pack into them, and the same three took first place again the following year as ewes after rearing six excellent lambs. Immediately afterwards they were turned into the flock without any reducing or hardening process whatever, and gave other three crops of good lambs without any artificial feeding.

Ambleside Farm.

This fine and well tilled farm, containing 300 acres, is situated on the west shore of Scugog Island. The beautiful brick residence, with spacious, ornamental, and well kept grounds, overlooks the lake, and the town of Port Perry, situated on the opposite shore, about one mile distant. The ground on which the house and farm buildings are built, though not appearing elevated, is high. From the verandah a wonderful view can be obtained of the surrounding country—we could see portions of nine townships, and the smoke ascending from the different homesteads, where 20 imported Clydesdale stallions are kept. Though located in one of the most fertile and highly cultivated sections of America, it is one of the best managed farms among the many good ones. The owner and cultivator, Mr. John Adams, was formerly a business man in Port Perry, and was eminently successful as such. Some 20 years ago he concluded he would try farming, and without previous experience he began to read and think on agricultural subjects, exhibiting that rare and marked ability in his adopted calling which had previously crowned him with success as a business man. His home, within and without, exhibits all the refinement and culture to be found in the best society anywhere; it is indeed an ideal home. His management of the farm, rotation of crops, system of culture, arrangement of buildings, all show that the proprietor understands his business. All work is systematically arranged and carefully carried out. The most advanced systems of agriculture are studied and practiced, always with a view to profit, for Mr. Adams makes his farm pay.

He has been very useful to the farmers in the neighborhood. He was one of the first to agitate the establishment of the Ontario Central Agricultural and Live Stock Association, which is now a very successful institution. He was also one of the prime movers in the organization of the Canadian Association of Fairs and Exhibitions, and is now president of each. He has bred and tested several of the different breeds of cattle, sheep and swine, and at the present time has a useful herd of 30 pure-bred Shorthorns, and 20 high grades—at the head of which stands the imported Cruickshank's Bull, Sultan Selam.

His horses are Clydesdale, either pure-bred or high grades, and are a very good lot, numbering upwards of 20 head. At their head stands imported Galloway Boy. His sheep number 65—40 being pure Shropshires, 6 pure Hampshire ewes, a pure Hampshire ram and 8 lambs. His pig pen contains thirty very fine Berkshire swine, all from imported stock.

Mr. Adams firmly asserts that as you feed your land and stock they will feed you, and thinks every farmer ought to so manage good land that it will double in production every twelve years. He claims that the growing of roots and the raising of stock, or its equivalent, are strong planks in the platform of success. All coarse grains should be fed on the farm, and clover largely sown. He seeds down the greater part of his land yearly, plowing up that which he does not require. He thinks this course pays well, especially on land not plowed until late in the fall. Scarcely any grass is left older than one year, but is broken up and soon again re-seeded. He also holds that seed grain should be frequently changed; in all cases

obtaining seed from fertile land, producing large yields, always bringing it from north to south, never from south to north.

In hog rearing he is a specialist. After experience with other breeds he prefers the Berkshires, but insists that farmers should breed from nothing but large, long-bodied, deep-ribbed animals, discarding all the little, chunky ones. He thinks the best time for pigs to be farrowed is in March, and if properly handled they should and will weigh 200 lbs. each by the last of October. He claims that unless pigs can be kept largely on vegetables and grass they are not profitable. His plan is to feed carrots, sugar beets and mangolds during the winter and early spring months, and then to keep them in clover pasture supplemented with only a little grain and slops, but they must be provided with plenty of fresh water and shade. If running water and shade trees are in the pasture all the better. The large pigs subsist almost entirely on the clover during the summer months; but should there be any young ones among them they are given a little extra food. One of the small fields adjoining the water is each year sown with early peas; when nearly ripe enough to cut the pigs are turned into these. One would suppose this would be wasteful, but the pigs seem to get every pea and do wonderfully well, much better than they would if fed the same amount of feed and kept shut up in the hog pen during the hot weather. On this point Mr. Adams is very emphatic. When the peas are all picked out a horse rake is used to gather the straw, which is taken to the stables for bedding. By the time the peas are all exhausted the barley and other stubble is ready to receive the pigs, and in the meantime their clover pasture will have recuperated and will again furnish excellent feed.

The rations of his thirty hogs (which were of all sizes), when we visited him last May, were five bushels of carrots and twenty pounds of peas daily, all boiled together, and fed warm but not hot. When furnishing for the butcher a few more peas are added, and when the pigs are very young a little meal is given in addition; but in either case the extra amount of feed is small. This is his winter system of feeding, sometimes using carrots, parsnips, mangles, or sugar beets, all of which can be cheaply and easily grown. From the appearance of the pigs when we saw them this treatment agreed with them well, a finer and more thrifty lot would be hard to find, all were looking well, many of them in show condition. For several years past the annual income derived from his pig pen has been $400, besides a large amount of excellent manure. The pen is so arranged that all the liquids are saved; the solid manure and bedding is mixed with it, and when drawn out all is again mixed with that taken from the other stables.

After testing several breeds of cattle, Mr. Adams thinks the Herefords the best suited to a grazing country; he believes they will put on more beef when on pasture than any other kind. The Polled Angus, he says, are very hardy and suitable to a cold country and coarse feed, especially where the feed needs searching for. The Shorthorn he declares the king of all cattle in the older and wealthier parts of Ontario, and as a general farmer's cow. He has had grades of each of the above breeds which were good milkers and butter yielders. He thinks the Jerseys and their grades are exceedingly good city, town or village cows, but are not suitable for general farming.

Like nearly all our sheep breeders he expects a very strong and growing demand for black-faced sheep. The American demand is likely to be larger this year than usual, from the fact that many of the western ranches are abandoning cattle and horses and going into sheep raising. Sheep can be more easily and cheaply raised than cattle, and not so liable to die as horses. Many western horses die before old enough to break.

Having travelled extensively in the United States, Mr. Adams, though a staunch Conservative, is an earnest advocate of extended trade relations with our neighbors. He says if our cattle, horses, sheep and swine were allowed to enter the United States free of duty it would be a great benefit to both countries. He says, the Buffalo and other city buyers claim that the best horses come from Canada, but the duty is a great disadvantage; if it were abolished, five horses would go over the lines where only one goes now, and our farmers would receive a higher price. He also says Canadian beef, mutton and pork is decidedly superior to American in quality and flavor. If we could send our cattle in free, many of our best beasts would bring as much in their large cities as they now do in England, and the demand would be strong. Our pork is very much superior to theirs, which is coarser, softer and more oily; ours is also free from disease, which theirs is not, and is also of much better flavor, it will always command a better price than theirs in their own markets. But the most marked superiority is in our mutton, which far excells that produced in any part of the Union, our lambs are in strong demand in all American cities, and with free trade an ever growing and very profitable industry could be carried on by our sheep raising farmers.

Holstein-Friesian, Shorthorn and Jersey Cattle.

At a recent meeting of the Peel Farmers' Institute, Mr. Smith, of the firm of Smith Bros., Churchville, Ont., read a very good paper on Holstein cattle, from which the following is abridged:—

Let us begin by taking a look back over their history to the earliest period of their existence as a separate breed, and to the land of their birth, N. Holland. More than 2,000 years ago a few poor peasants in this land of dykes and water, of frugality and thrift, began to devote their attention to breeding and dairying with the sole object of profit. It was a principle among them to select bulls from the largest and best milch cows, and breed from them. As a result it came to pass in the course of time that the milking qualities developed, the size increased, and the stock gradually grew better, and a strong family resemblance appeared. Later on the cattle were better housed, well cared for and well fed. This extra attention so much improved them that they soon became an important and distinct factor in the country's prosperity. To such an extent has this been the case that the revenues received from the dairy products of Holland far exceed the revenues received from all other sources combined, and surpass in value those of any other country in the world. There are to be seen in England, France and Germany dealers who handle only the products of Holland dairies at highest prices. During the last half century and longer in Holland may have been seen the cattle and the family under the same roof, separated by only a thin partition. Being so close they received extra care, and the stables were kept very warm and clean, so clean that often the dining table was put in one corner of the stable. They were curried and well-fed, petted and handled with kindness, thus developing that excellency of disposition, which is so marked a characteristic of the Holsteins and an essential of a good milker. With all these advantages they have gradually reached a high degree of excellence, and developed distinctive marks of breeding as well as of color. This is the condition in which Americans found them when they visited Holland a few years ago.

Previous to 1850 there were very few Holsteins, if any, that were brought to the States. In 1852 one cow was brought over, and in 1857 one bull and two cows. In 1859 four more were imported. On account of a disease that broke out in 1859-60, all pure-bred stock of this breed were destroyed in America, so that at the end of 1860 there was not a single Holstein to be found in America. In the autumn of 1861 an importation of five head laid the foundation and was the real beginning of this breed of cattle in America. The next recorded importation was in 1869, when the Hon. Gerrit S. Miller brought over a bull and three cows. In 1870 there were less than twenty head of this breed in America. Since then there have been many importations, and they have increased with wonderful rapidity, so that at the present time more than 15,000 are scattered over this continent.

Wherever found they have always taken a foremost place among the dairy breeds, and now bid fair to become the best in the world for dairy purposes. The art of developing the milking properties of cows, and the skill in feeding them for this one object have of late years received much attention from American breeders, and have brought to light milk and butter records that seem almost incredible to those not acquainted with these cattle, and who have not seen what they can do at the pail.

Experienced breeders cite cases where cows have had calves that were only ordinary milkers, but after a process of development have had calves that were excellent milkers; also cases where two cows of similar quality had calves, the one having undergone a process of development, the other not, the calf from the deve'oped cow always being far better than the calf from the undeveloped one.

By means of this process of development and by intelligent breeding the Americans have gradually improved the milk producing qualities of Holstein cattle until we have some wonderful records. I will give you the greatest annual milk records from 1870 to date.

In 1871	Dowager	12,681 lbs.	8 ozs.
" 1873	Crown Princess	14,027 "	0 "
" 1875	Lady Clifden	16,274 "	0 "
" 1881	Aegis	16,823 "	10 "
" 1881	Aaggie	18,004 "	15 "
" 1883	Echo	18,121 "	8 "
" 1884	Lady de Vier	18,848 "	4 "
" 1884	Empress	19,714 "	4 "
" 1884	Echo	23,775 "	8 "
" 1886	Clothilde	26,021 "	2 "
" 1888	Piertertje	30,318 "	8 "

This simply goes to show that the breeders of to-day have learned the art of proper selection and feeding, and are wisely putting it into practice. Just as horses are trained for great speed and endurance; just as athletes are trained to perform wonderful feats by wise and judicious training, by selected diet and by proper development of muscle, so cows are fed, at first light, then their food is gradually increased, their powers to change food to milk strengthened by judicious means until they reach a high state of perfection, and developed a Clothilde or a Piertertje. We may reasonably conclude that this strengthens their constitutions, increases their size, and developes all the parts that go to assist in the production of milk. Cows developed in this way give from 40 to 100 lbs. of milk in a day—eight to thirty thousand pounds in a year, and give from 10 to 25 lbs. of butter in a week.

Sometimes breeders of rival classes raise the objection that the milk is not rich in butter ingredients. There are some cows in this breed, as in all breeds, that do not give rich milk, but as a rule we find their milk good and rich. Several American breeders have answered this objection by giving their own experience with their own cows and heifers. One man says:—

100 Cows and heifers of our herd average, of unsalted butter, in seven days, over ..... 18 lbs.
62 do. do .. 20 "
47 do. do. .. 21 "
35 do. do. .. 22 "
24 do. do. .. 23 "
15 do. do. .. 24 "

Two other men say that more than 20 cows in each of their herds give over 20 lbs. butter in seven days. Others speak in the same way. This speaks for the breed, and not for two or three individual cows that may be found in any breed.

I may also add that a pound of butter is got from less than 15 lbs. of milk for many cows of this breed, and a pound from 18 to 20 lbs. of milk is very common, whilst in ordinary grades it requires about 25 lbs. of milk to make a pound of butter.

I may be permitted to add that for greatest quantity and best quality of butter the Holsteins have taken the largest number of prizes at shows held in New York, Michigan, Iowa, Ohio and Minnesota, where these cows are known. From this the conclusion must be drawn that they stand in the front rank as dairy cows, if they do not lead the van in this respect. Their milk is rich in casein, and hence it is good for cheese. The cream globules of Holstein milk are very small, and the casein often adheres to the cream thus making it rise more slowly than that of most other breeds. These small globules of cream, when churned, make a closer grained and finer flavored butter than of other breeds in which the cream globules are larger. This is proven by the prizes taken when all breeds have been allowed to compete. In the Dairy Show at Chicago held last February, the sweepstakes was won by Holstein-Friesian butter from the cow "Tritonni." She scored 89½ points out of a possible 100, which was the highest score made at the entire show. As beef cattle, they take high rank. They have large frames, and have the power of taking on flesh rapid y when not milking. From tests given in our Agricultural papers we see that they can gain from two to five lbs. a day, much depending, as in other cattle, on the age and kind of food.

MR. VALANCY E. FULLER,

of Oakville, said while he did not want to depreciate the Holstein cattle or discourage Mr. Smith, who was achieving a great work, yet at the same time he did not want the Holsteins to claim the whole earth. He believed the Holstein was a good dairy cow for butter and cheese, yet he believed the Jersey cow much better for that purpose, as a larger quantity of butter can be made from the same weight of milk. He considered the Jersey cow, the world over, far ahead of the Holsteins for giving rich milk. By the skill of man you can improve or decrease the quantity of milk of any cow. He claimed that a pound of butter has been made from six pounds of Jersey milk, and almost as a rule one pound from nine pounds of milk.

MR. J. C. SNELL

said he thought it would be unfortunate if the impression went out from this Institute that either the Holstein or the Jersey was the best cow, though one might judge from the remarks of previous speakers that there was no use in milking any other. He reminded them that at the Royal Show [illegible] and, for several years [illegible] for the best dairy [illegible] Shorthorn, and that in [illegible] here the breeds [illegible] together and Shorthorn was in competition, namely, at the Provincial Exhibition, held at London, a contest in which a considerable number of Holsteins, Jerseys and Ayrshires competed, and in which there was only one grade Shorthorn, the latter scored a much higher record, both for quantity and quality, than those of any of the boasted milking breeds. Also that at the Toronto Industrial Exhibition last year, in a contest in which four of Mr. Fuller's show cows competed, the prize for best record for quantity and quality of butter was awarded to a general purpose cow, a Devon, which had been in milk for 352 days. Mr. Snell reminded the farmers that they had the material in their herds in the grade Shorthorn, which, if carefully selected and bred, and fed with a view to developing her milking qualities, he was confident could be made the most useful dairy cow in existence, while at the same time she could produce a calf, which, if started on her skim milk, would grow into a beef animal at two or two and a half years old fit for the export trade and such as would do credit to our country. This, Mr. Snell contended, was the best course for the average farmer of Ontario, as the feeding of beef cattle was decidedly the best way to produce the best quality of manure to keep up the fertility of the farm, while the selling of milk and its products and removing them from the farm had a different tendency.

Chatty Letter from the States.

[From our Chicago Correspondent.]

It will be remembered that there was some sensation a year or so ago, when the American Cattle Trust was organized, with western ranchmen the principal stockholders. They took N. Morris, a prominent Chicago slaughterer, into the ring, claiming to have given him two million dollars for the use of the plant. Well, Mr. Morris is now out of it. He says he gave back the money he received, and resumes entire control of his establishment—which, by the way, he never seemed to relinquish. Some claim this will be the end of the Cattle Trust, but others think it has taken a new lease of life. Cattle fattened on distillery, starch factory and sugar slops have been marketed very freely of late at $5.25 @ $6.25 per cwt. Many slop feeders marketed too early, however, did not get the benefit of the recent improvement in prices. Some slop-fed cattle sold at $6 @ $6.15, however, were bought last fall and winter, to feed, at $2.60 @ $3, and, of course, made handsome profits.

Feeders made the mistake this year of getting frightened too easily at high prices for corn and low prices for cattle. They made a mad rush for market, arguing that they had better pocket the loss they had made before it got worse. Now these same people, as soon as the inevitable boom in prices came, rushed around and bought and shipped all of the cattle they could get hold of, and, as there were but few dry-fed cattle left, they flooded the market with grassy and unmarketable steers which should have been fed several months.

Our corn is so high that but few cattle are being fed on corn, and it is expected that choice, ripe beeves will be scarce until after the new corn crop.

Western ranchmen have been feeling somewhat better lately, and those who have had grit and ability to stick to the trade are in a fair way to reap their reward.

Some Montana range horses sold here recently at $45 @ $50 per head.

Hogs are selling 75c. higher than last year.

The writer has, for several months, been advocating the idea that the cattle trade could not remain in a depressed condition always; that the unheared-of sacrifice of breeding stock of all kinds must cause a reaction; that the wild rush of marketable cattle to the slaughter, regardless of prices, would be followed by a period of comparative scarcity and higher prices. The reaction came about the middle of June, and such cattle as sold a month before at $4.00 @ $5.00, sold at $6.00 @ $7.00. The advance was caused by the decrease in supplies of corn-fed beeves. The Texas cattle formed nearly half of the daily supplies, and the proportion of ripe corn-fed beeves was very small.

The highest prices for fancy heavy cattle in June during the past ten years were:—In 1888, $7.00; 1887, $5.15; 1886, $6.00; 1885, $6.25; 1884, $7.25; 1883, $6.30; 1882, $9.30; 1881, $6.60; 1880, $5.05; 1879, $5.20.

Average prices in July for ten years past on 1,200 to 1,500 lb. beeves were:—1887, $3.85 1886, $4.50; 1885, $5.55; 1884, $6 20; 1883, $5.50; 1882, $6.70; 1881, $5.50; 1880, $4.10; 1879, $4.80; 1878, $4.05.

The highest price paid for cattle in Chicago in the past decade was $9.30 in June, 1882. During the recent spurt in values here, some black and red Polled cattle, averaging 1,595 lbs., sold at $7.00—the highest since 1884—and since the trade has taken such a sharp upturn there are many who think prices will reach $9.00 by August. But some of these same people, a month ago, had made up their minds that cattle never would sell well again. How unwise it is to go blindly with the current tendency as if things were not constantly changing as the tide ebbs and flows!

Wetting Feed is Wasteful.

An able writer on this subject says he changed from a dry feed of grain for his cow to putting it into a pail of warm water night and morning. At the end of three months she had lost fifty pounds in weight of flesh, and her milk had fallen off nearly one-half. She seemed to be getting little benefit from her rations, and there was a general running down in condition. He then changed the food back to dry, and in three months the cow regained all she had lost in flesh and milk during the preceding three months. While feeding this he could never detect any waste of food in the feces; but in the wetted food he could. Feeding horses wet food sometimes produces dangerous attacks of colic, but in cows there is no danger of it.

Dehorning.

A correspondent of the North-west Farmer says: "On the first day of May 1887, I dehorned two calves by cutting out the young horns with a little of the hair around them; now, after eight months time, one horn on each calf appears to be entirely dead, but the other one grew again. If I had done as good work on all the horns as I did on the two, it would be a complete success. I used a common pocket knife. If I had taken one-eight of an inch of hair all the way round the horns, I believe there would be no signs of a horn. So far as I could tell from observation, my calves did not suffer from the operation as much as others did from castration; one calf was four months old and the other one month.

"If the dehorning fever has struck you go slow in the beginning and remove the first appearance of horn-growth from the calves before they have grown firmly to the head. Do this in the cause of humanity and watch results—it will soon be demonstrated whether you are justified in inflicting the pain and torture necessary in using the saw to remove the horns from older animals."

The use of a bull bred from first-class butter-producing ancestors, has beeen known to double the butter product of the same number of cows.

According to a current paragraph "at a dairy convention in Vermont all the audience owning silos were requested to rise. Ten stood up, but none would allow that the ensilage system is a benefit."

The Suffolk Horse.

By many the Suffolk horse is very much admired, and from what we have seen of them we consider them a good farm horse, destined to rival, but not to supersede other draught breeds. The following is what their breeders have to say in their favor :

As far back as 1813, the Suffolk horse was a favorite. For power, endurance, constitution, and longevity, it has long been famous. Its height varies from 15¾ to 16½ hands, has short flat legs, with short strong pasterns, free from much long hair ; hard clean legs, with bone of compact quality being desired, rather than soft large legs. Shoulders very long, lying rather forward to suit draft purposes. Hindquarters long, heavy, well and close coupled with loin and back, having the legs well under the horse. The recognized color is chesnut. Bays were very prevalent some years ago, but the presence of that color can, in nearly every case, be traced to the introduction of extraneous blood.

At one of the early shows of the Suffolk Agricultural Association, a mare was exhibited with a sucking filly by her side, the united ages of which amounted to 41 years. For long hours without food and short rations when they get it, no horse can work with a Suffolk. The iron constitution of these deep-ribbed hardy animals, and their habits of life transmitted from one generation to another, have accustomed them to that which would have killed another breed. In temper they are docile in the extreme.

The Suffolk is an excellent mover, with a smart quick step, a true balance all round on the trot, and a capital walker. For all purposes of agriculture, he is good, smart in harvest, quick at the end of the plow, a fast walker on the harrows after the drill, and a staunch slave at the collar, he is unsurpassed by any breed of horses in England or Scotland.

For the first 23 years of the Royal Society's existence, the prize was offered for "the best horse for agricultural purposes," and the various breeds took their chances among specimens representing every variety ; of these 23 first prizes 14 went to Suffolk horses, and the remaining 9 represented the united success of all the other breeds which competed. In addition to these, more than half the second prizes awarded during the same period were won by Suffolk horses. But the society did well to separate the classes. Prejudice began to run high, and district prizes for Clydesdales, Shires and Suffolks enabled the judges to give their decision unbiased by predilections for particular breeds.

The Suffolks are noted for the honesty and continuance with which they will exert themselves at a dead pull. Many a good draft horse knows well what he can effect, and after he has attempted it and failed, no torture of the whip can induce him to strain his powers beyond their natural extent. The Suffolk, however, would tug at a dead pull until he dropped. As far back as 1742 we read of the Suffolks taking a prominent place at drawing matches, the low position of his shoulders enables him to throw an immense weight into the collar.

Several New England co-operative creameries have reduced the cost of buttermaking to about three cents a pound, and last year returned their patrons an average price of 25 cents a pound.

Every farmer ought to know the individual value of each cow as a milk and butter producer? Decisions in this matter must be arrived at by actual tests, not by guess work, as is so often done.

The Dairy.

Summer Care of Milk.

BY DAIRYMAN.

Dairymen, like all other people, are, or should be learning from his experience. The first and most pressing question on a dairyman's mind about this season of the year is how to take the best care of his milk so as to make the most of it, whatever may be the system followed, be it cheese or butter manufacture.

As this is about the time when cheese factories are in full operation and producing the largest quantity of goods, and generally the market is about its lowest, when allowed to take its natural course, it might be useful to give a few hints on this subject. First let me say what has often been said before, for a healthy cow there are three things absolutely necessary to produce good milk: plenty of good food, plenty of good water and plenty of salt. I am not going into details or analysis of different foods for cows. At this season of the year plenty of good pasture with a little chop or meal is all they want. In traveling I saw that dairymen have learned a lesson from last season's drought, and that is to provide feed in case of short pasture. I have seen many plots of corn put in, some broadcast, some in drills, some in two rows, and miss two, sown with a drill evidently preparing for feed. No doubt where this growing of corn is attended to the result will be satisfactory to the farmer.

The next point is plenty of pure water. It may be very easily understood by everyone that as milk contains about 86 per cent. of water, impurities in the water the cows drink will assuredly affect the milk, and if the milk is affected its product will be to the same extent.

The third point is the salt. Experience has taught observers that cows when getting plenty of salt, other things being equal, will give more and better milk than the same cows on the same feed and water would do without salt, and I think Prof. Robertson, Ontario Agricultural College, Guelph, made some practical tests on this very point with some eight or ten cows, and found that the milk of those getting all the salt they wanted, kept sweet at the same temperature and under the same circumstances eight to ten hours longer than the milk of cows having the same feed and water but no salt.

I think I hear some one say, "why we have heard all that and more, too, before now, and every dairyman knows these things." That may be true, or it may not, but you don't need to visit very many cheese factories till you hear cheese makers speak of tainted milk, gassy curds and milk coming in in not very good condition, and so long as this is the case either some dairy people don't know, or don't practice what they do know about the milk, there remains the need of having them reminded, and repeating the old story of cleanliness, airing the milk, keeping cans clean, and setting the milk stand in a clean place. I was astonished one day lately in my travels to see, after passing a farm house, a short distance from the entrance the milk stand, and on the other side of the fence a hog pen. I just thought here's a case for the Inspector of Nuisances to take up, and by the way, I would throw out a suggestion that the milk and cheese instructors should be appointed Nuisance Inspectors as well, and wherever they can hear of or see a hog pen on the road side near the milk stand they should notify the farmer to have it removed to some other quarter, where it would not endanger the health and comfort of his own family, and that of his neighbors, and not cause the milk of his cows becoming unfit for human food. If their notice was not attended to and the grievance removed, the factory ought to refuse to take such milk, till such time as it was fit and clean for human food.

There are two points in particular which must be noticed in taking care of milk, these are: airing the milk, and the temperature. I am not aware of any very speedy way of airing the milk, and at the same time cheap and simple. What is meant by airing the milk is exposing it to the air in thin sheets, so that the air may come in contact with as much surface of the milk as possible, thereby removing the animal odors, which the milk naturally receives from the animal's body. If the animal breathes impure air, eats unclean or flavored food, or drinks impure or tainted water, the milk will be affected, and have the same taint the cow's body may have at milking.

There are various simple ways of airing the milk. Take a good large long handled dipper, and lift the milk up into the air and pour it slowly into the can, or better, if you have another can, out of one can into the other, or from one pail into another. This is the simplest way of airing the milk, but I expect that there will be more attention given to it in the future, and some simpler means found whereby the airing of milk will become general. This is done simply to purify the milk, by the air coming in contact with it, and you will, therefore, see the necessity of having the air pure with which the milk is brought into contact, and this explains why milk stands and milk cans should be clean and their surroundings pure. I learned from a very observing dairyman last week that he keeps his Saturday night's milk and takes it to the factory Monday morning in good condition. One Sabbath morning he did not air his milk until some time after milking, and the result was Saturday night's milk was good, and Sabbath morning's milk, though milked twelve hours later, sour and partly tainted. This shows us that the sooner the airing is done after milking the better.

A word about cooling. It is not necessary to cool the milk very much. If it is well aired it will keep for the night, if 68° to 70° warm, and, as a general rule, the airing cools it to this degree. Milk which is cooled and not aired is sometimes the worst of all ; for instance, set a can of milk in a tub of cold water without stirring it, the cold water sends the cream to the top of the milk, which, having formed a skin, prevents the heat, odors, and taints from escaping, though they try their very best. This is one reason why there is often poor flavored butter, the animal odors of the milk in trying to escape from it are caught and held by the cream, and conveyed to the butter against their will, and spoils it, and in nine cases out of ten the dairymaid does not know how it is her butter is not sweet, for everything else is clean and sweet. If a little care had been taken with the milk at the start everything would have been right.

One of the uses of giving cows salt, especially in hot weather, is that it acts as a preservative in the system. Everyone accustomed to test milk can tell by its flavor whether the cows have been getting their salt. I have no doubt, whatever, that the neglect of "salting the cows" spoils the butter and injures the milk for the cheese factory. If these hints are attended to a few points of progress will be made in our dairy business.

Churning.

The dairy interests of our country are growing year by year in importance, and although cheese-making may claim the larger share of this industry, yet undoubtedly there are more individuals directly engaged in the manufacture of butter; for this latter product, although also made in factories, is most extensively manufactured in the small dairy on the farm, and it is especially to these that we direct our remarks.

Churning, although it may seem an artless process, requiring little attention or study, is by no means so simple as it may seem, but, on the contrary, requires the strictest care and attention, for on its proper execution the quality of butter very largely depends. We do not claim that a careful attention to churning is able to produce a choice grade of butter from inferior cream; but that careless churning will produce an inferior grade of butter, no matter what the quality of the cream has been.

The principal factors that are involved in churning are:—The temperature of the cream, the condition of the same, the construction of the churn, the rapidity of its motion, and the time required to complete the separation of the butter.

Although all of these are closely connected with each other (their connection being so close that if one be changed one or more of the others require to be changed also), temperature may be said to be the most important factor, and it, being such, should cause every butter maker to carefully use the thermometer.

Too high a temperature causes a quick separation of a reduced quantity of soft butter, containing a large percentage of buttermilk, and lacking in flavor. Owing to the softness of such butter the buttermilk can only be imperfectly separated, and that retained in it will cause a reduction of its quality and keeping properties.

Too low a temperature is also very injurious, causing a slow separation of a reduced quantity of hard, tallowy butter, the grain of which it is almost impossible to preserve in its subsequent management. As a general rule the temperature that produces the largest quantity of butter also produces the best quality.

To determine the proper temperature is, however, a very difficult matter, it being dependent on so many circumstances, which make it impossible for any one best churning temperature to exist. During churning the temperature of the cream will change more or less, and as it is the temperature at the close of this operation by which the butter-maker should be guided, he will have to study the causes which affect this change to determine how warm the cream should be when put into the churn. These are two, namely, the heat developed by the motion of the cream and the influence of the surrounding air. The former will be in direct relation to the rapidity of the motion and the consistency of the cream. The latter can be largely overcome by having the room as nearly as possible at the same temperature as the cream; or, if a metal churn is used, by surrounding it with water of the required warmth. If the room is too warm and no water is used, cool the cream 1° to 5° lower than it should otherwise be. Before using the churn it should be rinsed with cold water in summer and warm water in winter.

The composition of the cream changes the temperature at which it should be churned. When the cows are fed largely on dry food in the stall, the butter-fat has less oil in its composition than when obtained from grass, and the less oil it contains the higher the temperature at which it is churned should be. This has been clearly shown at the Kiel Experimental Dairy. There, slightly sour cream of 57° to 59° F., was regularly churned in 35 to 40 minutes, when the cows were in pasture; but when put in the stall and fed with dry food and turnip leaves, the time required to churn the cream, when at the same temperature, was from 1½ to 2 hours, and the butter produced, less and of inferior quality. But when the temperature was raised to nearly 65° F., butter of the former quantity and quality was again produced inside of 40 minutes.

The condition of material to be churned has also a marked effect on the temperature. When the cream is slightly sour, generally termed ripened, it should be churned at a higher temperature than when sweet, and the more concentrated it is the less the temperature required will be. If it has been found that ripened cream should be 60°, then sweet cream should be 52°, and sour milk 65°, when churned. Ripened cream will churn easier than when perfectly sweet, and the more concentrated the cream—the more butter-fat it contains—the easier the churning will be.

To obtain the best results, churning should be completed in not less than 20 minutes, and not more than 60 minutes. The cream should never be placed in a bath above blood heat, and its temperature should never be changed suddenly by putting ice or hot water in the churn. This would be injurious to the quality of the butter. In the best dairies water is never added to the cream; it is not only very liable to convey impurities to it, but it also affects the churning. In an experiment, cream was diluted immediately before churning, with its own bulk of water; this proved to retard the separation of butter fifteen minutes. Another sample of cream was diluted with six times its weight of water, allowed to stand 24 hours, then the cream that had risen (which was 30 per cent. heavier than it was before being diluted) was again taken off and churned, but no separation of butter could be obtained.

Occasionally it is impossible to effect a separation of the butter-fat, the cream forming a froth, sometimes rising to the top of the churn. The cause of this may very frequently be traced to having the cream too cold. Want of cleanliness, especially of the churn, letting the cream become too sour, and an altered condition of the milk—sometimes met with in cows long after calving—are also causes of the same complaint.

A correspondent of the Country Gentleman says:—Butter, whether sold while fresh or packed for keeping, should be free from buttermilk; such freeing should never be brought about by working, but by rinsing with cold water while the butter is still in the churn in a granular condition. After rinsing until the water runs perfectly pure, the churn should remain tipped, and the water allowed to drain off till the butter is dry. Then, if salted with dry salt, there should be a slight working, after the grains of salt have dissolved, for the purpose of liberating the surplus brine. Butter requires little working—the less the better. It should never be worked until it presents a dull color, as indicated by some writers, for such would show that the grain had been broken, and, of course, the keeping qualities injured.

Vegetable Flavors in Milk.

A Pennsylvania farmer writes in one of our exchanges:—In this county, where butter and milk are the staple articles of sale, garlic abounds; nearly every farm has one or more of its fields set with it to some extent. It is the rule, when such a field has to be pastured in the early spring to take the herd from it at noon, having been turned on it after milking in the morning. Though they are then so charged with it that their breath betrays them almost before one can see them, by sundown they will have passed it off through the lungs, and the milk when drawn is almost free. The next morning if kept from fresh garlic at night, it is entirely so. If by some carelessness the herd is allowed to have a feed of it immediately before milking, the product is quite unsalable, either as milk or butter.

Our butchers have a similar experience. They buy cattle fed for weeks where garlic abounds, keep them a few days on clean grass, and find the meat untainted; whereas a clean fed animal, allowed a night's feed containing garlic and killed in the morning, will be thoroughly contaminated.

Garlic and turnips are different plants, but I think that if fed in moderation immediately after milking they will not affect the flavor of the milk.

Mr. Fuller's Views on Ensilage.

In addressing a farmers' meeting recently Mr. Fuller said the cheese production of Ontario is an honor to the country, but the butter output "a curse and a disgrace." For every tub of good butter produced there are twenty bad ones—all owing to a lack of information how to properly manufacture it. Only when the farmer is educated in this respect will he discover that the cow is the best bank account he has. He can no longer rely upon grain growing, and the sooner he is made aware of the fact the better, that the cow is the principal factor in his redemption. The proper sort of cows to select are such as produced the best results in quantity and quality. There are many cows in this country that have to be kept the year round and yield only 125 pounds. The better plan is to keep none that give less than double that quantity. I would urge upon farmers the advantages of inter-dairying by means of creameries, and thus not only relieve their wives and daughters of the present drudgery, but retain much of what is vital to the well-being of the soil. The day is not far distant when, as in Boston and New York, milk will be sold in Toronto on its merits, and at prices proportionate to the solids it contained. I would also emphasize the importance of giving warmer water to milch cows. At Oaklands the temperature of the water is raised to 70 degrees. Butter sold by the pound should be stamped with the maker's mark or name, by so doing, if good, it would always command purchasers at a price over the unstamped article of two or three cents a pound.

Another important factor is the "production of feed at the least possible cost." Five years ago I constructed an ensilage pit 24 feet long, 16 wide and 18 deep, supplied with fodder raised from Southern corn, sown early in June, which proved quite a success; and a similar one constructed by a New York gentleman was opened after seven years and the contents discovered to

be in a state of perfect preservation. The essential point is to render the silo air-tight, otherwise, as in the case of canned fruit when exposed, the contents will rapidly become so much putrid matter. The best corn for ensilage is the "Mammoth Southern" and "Red Cob" varieties—preference being given to the last named. I plant three inches between each kernel, and in rows two and a-half feet apart, or sufficiently wide to admit the cultivator, which is kept going until the height of the stalks prevent. The crop is cut when at the glazing point, allowed to wither, hauled in and cut into three-quarter inch lengths, put into the silo, well tramped; it sinks a good deal; filled up again—and still again if necessary—until done settling; covered with tar paper, and above this six or eight inches of earth, and the thing is done. Such ensilage will average 50 pounds to the cubic foot, will keep for an indefinite period, and is one of the most valuable foods for milk production that a farmer can possibly raise.

Ensilage-fed cows will give a greater quantity of butter than when fed on hay and other foods. We do not feed ensilage as the whole, but make it take the place largely of hay.

We have properly cured corn stalks but prefer the ensilage owing to its succulent nature, and from the fact that as a nutritious and green food it gives a larger amount of butter than can be procured from the milk obtained from corn fodder or from hay or clover, owing to the fact that the milk is more churnable, like the milk obtained from grass. Analysis shows no more butter fat from ensilage-fed milk, but shows less fat in the buttermilk.

It is the most economical feed that can be grown. Our ensilage only cost us $1.60 per ton; we have made it for less; by placing the cost at $1.60 per ton we are putting it beyond what people generally consider is the cost. We raised from 25 to 30 tons per acre. I allowed such heavy manuring that the exhaustion by the corn could not possibly exhaust the soil. Two and a-half tons of ensilage, as a rule, is equal to one ton of the best timothy or clover hay for feeding purposes. But, allowing three tons as equal to one ton of hay, we have in ensilage a fodder which gives a better color to the milk, keeps up the flow of milk longer, and gives up more butter, and yet only costing us $4.80. I asked where could hay be grown for that figure?

Ensilage can be stored as well in frames above the ground or in a hay mow as it could underneath the ground. All you require is to make the silo air-tight and water-tight. We have fed 250 head of stock, including young animals, from half a bushel to a bushel a day, from forty acres of ensilage and corn stalks from the time they went into their stables in the winter until spring pastures came on again. In place of hay we mix straw with the ensilage, as it has a tendency to make the bowels loose. Experience has proved to me that it does not taint the milk nor the butter made therefrom.

The silo must be kept frost-proof and free from mildew, which can be done by having a gravel or slanting floor to carry off the soakage from the green corn. One can store a vast quantity in a small space.

It pays well in both comfort and labor to have all outside doors and windows provided with fly screens, if home-made they can be provided very cheaply.

Garden and Orchard.

To Prevent Potatoes Rotting.

Mr. J. C. Garland, of New Hampshire, claims to have discovered a plan to prevent potatoes rotting, which may be tried on a small scale. His remedy is to keep the hill dry, so that the potatoes may have air to breath, by covering the top of the hill with a piece of old paper, or something similar, after the potatoes are nearly grown, to shed the excess of rain, which causes the rot. If the tops are bent to one side, and a piece of paper 12 inches square be confined on the hill by stones, sticks, rails, or a little earth, he has found it effectual in preventing the rot; the expense need not be much more than one hoeing. He was led to this discovery by observing that on a hill of potatoes where a turkey had set and hatched her young, and shed the rain from the hill, every potato in the hill was sound and good, while the other hills on the piece were not worth digging.

The Onion Maggot.

Prof. Lintner, New York State entomologist, recommends spreading gas lime fresh from the works, upon the ground in the fall, at the rate of 200 bushels per acre. The maggots pass the winter near the surface of the ground in a chrysalis state and the gas lime would kill them. Miss Omerod, an English entomologist of note, has been successful in keeping off the maggot by simply earthing up to the neck each bulb, sometimes growing them in trenches to favor this operation. A Massachusetts gardener has for forty years used a strong decoction of burdock leaves with success. He runs them through a hay-cutter, pounds them to a pulp, and adding water, leaves them standing over night. He applies by pouring the mixture along the rows. Prof. Riley recommends spraying the onion patch with kerosene emulsion.

Transportation of Fruit.

In some parts of this Dominion the transportation of fruits and other perishable goods has caused considerable annoyance, which could be easily overcome by the railroads if they took the interest in the shippers welfare they should, and which the roads in the European countries find it to their interest to do. Recently an order was issued by the officers of a certain German road, which had for its object the more perfect preservation of butter and other similar goods. The employes of the road were instructed to store, immediately after its arrival at the station, all such goods in the coolest part of the sheds, prevent the sun from shining on it, forward it as quickly as possible, ship it if possible in the shade and as shortly before the departure of the train as could he managed. The cars in which the butter was to be shipped had to remain in a shady part of the yard till shipment occurred, and if their exposure to the sun was unavoidable and the day was hot they were to be cooled as much as could be by dashing cold water on both their inside and outside. During the hotest part of the summer the butter was to be shipped on fast freights running at night or the cooler part of the day. Immediately after the arrival of such goods they had to be delivered by the railway dray to the storehouse of the proprietor. If one-half this care were taken with the products of fruit growers they would, we think, feel highly satisfied.

Cactus.

There are two things that are imperative in order to be successful with cacti, viz.:—A season of perfect rest, and the most perfect drainage. During the winter months, they should be put in some place where this can be attained; if in a greenhouse, some dry shelf, away from amongst other plants; if in a house, the garret or some out-of-the-way corner, where the temperature does not fall below 45°. Never give them water unless you see them shrivelling up, and even a little of this is better for them than moisture. Evade any cold, damp place above all things. In their native habitats they are found growing on the arid plains and mountain sides, where they are almost burnt up during six months of the year. Such positions give them perfect drainage also, as when the rainy season comes no water can ever stagnate about them. Much has been said about the proper material in which to grow them. What I use is a good free loam, mixed with lumps of old lime, rubbish and charcoal. I do not know that those things last named are necessary only to ensure perfect drainage and keep the soil open, but with this the usual method of plenty of crocks in the bottom of the pots must be carefully attended to. And when the spring comes, give them a good washing to cleanse them from dust and insects, put them in a warm sunny position, don't be afraid of too much heat, they will stand a very high temperature and be benefited by it. Water sparingly at first, and increase as they begin to grow. If you have not a high temperature your watering must be carefully done. Cold and dampness are the greatest enemies they have. Mexico and Brazil are the principal producers of many of them, although they are found in several other tropical regions of America.

To enumerate the many different species of them would perhaps be superfluous in the eyes of many readers. In a botanical collection in England, there are over nine hundred species, but I will take only a few of the kinds most frequently seen.

Phyllocacti are those frequently seen in collections and houses, and are known by their flat or triangular forms. The colors of their flowers are crimson, white and pink. They make a grand show, and their flowers will last a considerable time, if kept in the shade and in a rather low temperature during this season.

Opuntias, or prickly pears as they are sometimes called, are round stemmed with flat, oblong branches. Of them are many species, and many of them are of considerable commercial value. O. Cochinellifera and O. Tuna are those upon which the Cochineal insect is fed, and from which the dye cochineal is taken. There are several other uses they are put to in fancy work, such as baskets, trays, etc. Two of them are found in our North-West Territories.

Cereuses are another numerous class, often called the Tree Cacti on account of the great height attained by them. Some reach as high as sixty feet; some of them run up in straight poles, whilst others branch like a tree. Their stems are in various forms, round, fluted and angular. The most commonly known of them are C. McDonaldii and C. Grandiflorus. Many of them are night bloomers, flowering only the one night, opening about five p.m. and closing about ten the next morning, some of them very large, measuring as long as twelve and fourteen

inches, of the most beautiful and delicate texture and gorgeous colors.

Mammillarias may be said to be round balls covered with prickles. The flowers are thrown up from this round ball, but they do not in general attract the same attention by their flowers as the former variety does, but their curious shape always attracts attention. They require rather better treatment than the others, that is to say not so much dry treatment, and a richer soil.

Echinocacti are very similar to the former in most respects, only they have longer spikes and appear more formidable than the others.

Epiphyllums, called Lobster and Crab's-claw Cacti, are generally found growing on the trunks of trees in their native country Brazil, and they do and look well in a hanging-basket. But they are mostly seen here grafted on the Pereskia stocks and other sorts such as Grandiflorus. They are very beautiful in their many colors in this shape also.

These are a few of the most prominent varieties grown. No collection of plants should be without a few of them, if it were for nothing else than for their curious and unique appearance. Planted out on a rockery, or in a bed, the different varieties form a great source of attraction, which people appreciate. I never care to take them from the pots as it is such a rough job to handle them, and men do not like it, some of their pricks being in the style of a fishing hook, barbed and difficult of extraction.

Much confusion has reigned amongst the names of the Cacti. You can order by name and think you are getting something different from what you have and when you get them they are frequently something you have under another name. —[N. Robertson, in Canadian Horticulturist.

How to Dry Flowers.

To preserve the color when drying flowers it is necessary to dry them as quickly as possible. Almost all, except fleshy flowers, will keep their color well if placed between two sheets of blotting paper and ironed. The iron must not be too hot. To retain the color of red orchids, dip the flower while fresh in a mixture of four parts spirits and one part spirits of salt. (Take care not to let this mixture fall on clothes, as it will burn them.) Let the fluid dry off the flowers by exposure to the air, and press them in the usual way. To glaze flowers, use any transparent varnish. The secret of pressing flowers and leaves is to frequently change the paper in which they are placed and to avoid too sudden pressure at first.

KEROSENE EMULSION FOR SCALE INSECTS.—The formula for the destruction of insects, advised by Prof. Riley and generally approved, is as follows :—Kerosene, two gallons ; common soap or whale oil soap, one-half pound ; water, one gallon. Heat the solution of soap and add it boiling hot to the kerosene. Churn the mixture by means of a force pump and spray nozzle for five or ten minutes. The emulsion, if perfect, forms a cream which thickens on cooling and should adhere without oiliness to the surface of glass. Dilute before using, one part of the emulsion with nine parts of water. The above formula gives three gallons of emulsion and makes when diluted about thirty gallons of wash.

Prof. A. J. Cook, in reply to inquiries at a recent meeting, stated that he had not succeeded in preventing the ravages of the plum curculio by the use of arsenites. From his experiments he had no hope in this remedy for the curculio.

The Apiary.

Introducing Queens.

As colonics may be queenless, or the bee-keeper may desire to introduce better blood into his apiary, a safe method to introduce queens will be of use. A colony should be queenless 36 hours before introducing another queen, or at least 24 hours ; the queen you wish to introduce should then be placed in the queenless hive in a cage, and remain there 48 hours; all queen cells having been destroyed when placing her in the hive. At the expiration of the 48 hours, or about that time, choosing about six in the evening as the time, quietly release your queen, and quietly put the lid upon the hive. Now leave your bees alone for several days, and watch at the entrance ; if they drag out the queen dead you know you have failed, and must introduce another. Rudely jarring the hive when closing it after introduction is also dangerous. Always handle bees with care.

Swarming.

Do not let your bees swarm too often. The aim of a good bee-keeper is to keep down the increase now. A supply dealer may try to get you to fill a dozen hives, so as to find a sale for them, but do not allow yourself to be misguided. It is a wrong policy on his part. His aim should be to get you to so conduct your bee department upon the farm as to make it truly profitable, and although the immediate returns may not be so great, honesty is the best policy in this instance as in all others. Give your bees room to store honey ; do not put supers on too late; give shade and ventilation, and prevent your bees from swarming as long as possible. If they swarm put the new swarm on the old stand, giving the old super to the new colony, say after two days. Your old colony is not likely to swarm again, but should it, hive it on combs or foundation, placing it alongside of the parent colony upon the evening of the second day, return the second swarm to the parent colony by shaking the bees off the combs, and they are almost sure to remain, killing one of the queens. If the swarm were returned at once it would be almost sure to swarm again the next day.

In handling bees remember they mark their location and will not follow a hive, but return to their own stand unless the hive is moved a little at a time. Of course in swarming this does not hold good, but at any other time it does.

Bee Stings.

The beginner is perhaps troubled with his bees being cross, and a hint as to how to prevent being stung will doubtless be appreciated. First and foremost bees object to offensive odors, one's person should be clean and sweet ; if overheated, you had better not go near the bees, they will not only be more apt to sting you but the sting will be more painful. You should have a light straw hat, and cotton or linen clothing ; woolly clothing having fuz on it they object to, and you are liable to get stung ten times when wearing it to once when dressed in smooth garments. Next, let your movements be deliberate and do not appear to fear the bees; quick nervous movements the bees resent. If a bee is troublesome and you wish to retreat, put up your hands quitely and shield your face, and as quietly retreat; if you throw up your hands wildly and run, you may be sure you will loose the race and the bee leave his mark. In handling prevent crushing bees, if you crush a bee she gives off the poisonous smell, and this irritates her companions and they will become cross. Do not jar the hive; this irritates them. These are the secrets in successful handling. Every worker bee is liable to sting anyone, the difference is as given above and in the disposition of the bee. Certain strains of hybrids are very cross ; do not breed such strains.

The next thing is what to do when you do get stung. A bee when it stings leaves the scent of poison upon the spot, and if left other bees are liable to attack you The sting, which is always left in your person, is so constructed that it works in deeper and deeper, and the setting of the muscles about the poison bag which is attached to the sting helps to force the poison into the wound, therefore scrape with your nail sideways the sting away. Do this the moment after you are stung, the sooner the better. After removing the sting, many just give the spot a good smoking, which deadens the poison scent, or if you wish you may wash the spot. Many things are recommended as an antidote to apply to the wound, such as moistened baking powder, blueing and ammonia. Some find one the best, others another ; ammonia is perhaps as good as any with most. Apply it at once, and do not rub the spot. Very rarely a sting is dangerous. Should anyone have bad symptoms following, such as torpidity and the like, ammonia and water should be taken internally, but be careful not to give it strong enough to choke the patient. Cold water may be applied externally. If horses or other stock on the farm are dangerously stung apply blankets and cold water. Fatal results from bee stings are happily far more rare than attacks from dogs and stock on the farm.

On Color.

C. M. Goodspeed, in Bee-keeping says: "There is a portion of the bee-keeping fraternity who look with deep interest upon the wonderful development of color manifested in the breeding of the Italian bees. In 1859 they came from sunny Italy to this land of bee vicisitudes. At that time the workers all showed three yellow bands on the abdomen, the two nearest the body were quite plain but the third in many cases was only visible when the honey sack was full, this condition is true now with direct importation to some extent, but some breeders have carefully selected for color and color only because that was easy, color can be distinguished at once, while good working qualities or disposition can only be ascertained after carefully testing. I say breeding to color is the easiest point in the whole list. We have now bees with the dark line between first and second yellow bands entirely gone, instead of three bands we have four and some little show for the fifth and not a few breeders are trying with all their might to drive the dark all off. Friends, I protest ; it is a folly to believe a yellow Italian is better than others ; where are our large honey producers on this question, without exception they want dark queens, claiming greater vigor and better honey gatherers. As long as the demand exists for yellow queens and four banded bees they will be produced, and at a sacrifice of every thing else. Let our breeders give us three bands, then vigor of constitution, activity, and those general characteristics that built the reputation for the Italian bee, which bee we are fast loosing sight of."

Poultry.

Hamburgs.

There are five varities of these little fowls bred in Ontario at present, viz.: Black, Silver Spangled, Silver Penciled, Golden Spangled and Golden Penciled. There are no more prolific birds known, laying fully as many eggs as the noted Leghorns, and a far superior table fowl. In fact for their size they are a very meaty bird, the bones being very small and the flesh of excellent quality. They are very wild by nature, and it is very difficult indeed to make pets of them. They do not receive the attention they deserve, especially on the farm, where they can have ample range. This is no doubt owing to their small size and wild nature.

Gapes

Is a fatal disease of chickens, and which we believe infectious; it is, at all events, epidemic. Unless perhaps thus communicated by others, it never occurs except there has been foul water, exposure to wet, and want of nourishing food. The disease consists—at least, so far as actual symptoms extend—in a number of small worms which infest the windpipe, and cause the poor chicken to gasp for breath. If taken early, it will be sufficient to give every day a morsel of camphor the size of a grain of wheat, and to put camphor in the drinking water; or a little turpentine may be given daily in meal; taking care, of course, that the deficiencies in diet and shelter be amended. In fully-developed cases, the worms must be removed by introducing a loop of horsehair into the trachea, and turning it round during withdrawal; the operation to be repeated several times, till all the worms appear to be extracted. A feather, stripped almost up to the top, may be used instead of the horsehair. The frequent occurrence of gapes is a disgrace to any poultry-yard.

July Notes.

Shade is indispensable for the chicks this month. If sunflowers have been planted as recommended in April issue of the ADVOCATE, they will afford all the shade required; if not, it should be provided either by allowing them access to shrubbery or trees, or by extemporizing a shed, four posts supporting a rough covering of boards, or boughs will answer a good purpose, in fact, anything for a protection from the fierce rays of the sun. The chicks will be large enough to eat whole wheat by this time, and even though it be close to a dollar a bushel it is the cheapest feed for them at this age and in this hot weather. Free access may be given to milk in conjunction with wheat or other whole grain, but it is not best to give too much milk when the main diet is soft feed, such as grass, bran or chopped feed. Close attention must be given to the houses during the hot weather. The chances are that your perches are now alive with red mites on the lower side; if not, keep a close watch, or better still, keep them washed with carbolic acid and water. We use the crude acid which may be bought from the druggists for twenty-five cents per pint.

A very cheap way to fence poultry from the garden is to stretch three No. 12 wires quite tightly, and then weave in common swamp willow, sharpening the ends and sticking them in the ground a couple of inches. This fence does not cost over six cents a rod, and is very effective.

Hatching.

There has been on the whole no ground for complaint about hatching this season. A few cases are reported where the hatch has been below what it should be, but many are far above the average, and in all cases where the birds have had proper treatment, the eggs have been hatched unusually well.

The chicks as well as the adult fowls should be allowed to get out very early in the mornings, it makes a great difference in their growth as well as productiveness to do so. If they are closed up at night, they should be liberated very soon after daylight in the morning.

"Pip."

Fannie Field says:—"Pip" is not a disease "all alone by itself," but the symptom of some other disease. Any disease of the air passages, cold, roup, or gapes, which closes the nostrils and forces the victim to breathe through the mouth, may cause "pip." The air constantly passing over the tongue makes it dry and scaly, and sometimes very hard at the tip. The treatment depends upon the cause. The disease must be treated, not the symptom. We once had a number of chickens which had the pip. A neighbor who was older, and professed to know more about chickens than we did, told us to cut off the tip of the tongue; but as that seemed cruel, and I couldn't see any sen e in such a proceeding; any way, we did not follow her advice. The chickens acted as if they had a "cold in the head," so I put them in a dry p'ace under cover, gave them all a good dose of castor oil, fed them on cooked food only for several days, gave them pepper in the food, Douglass' mixture in the drink, and they all got well. Didn't do a thing to their tongues.

Poultry Notes.

Cabbages, onions, turnips, beets, apples, potato parings or other vegetable refuse should be given the poultry. Clean water should always be provided. Sulphur, insect powder and kerosene should be used freely in preventing the spread of and in destroying poultry vermin. On many farms it will pay better to build a large poultry yard to pen the chickens in, than to build a much longer garden fence to pen the chickens out. However, great possibilities there may be in poultry raising, the plan adopted by many farmers causes a loss of far more fruit, "garden truck" and grain, than the chickens are worth. Intelligent management and feeding are as necessary with chickens as with other live stock. It may be a pleasure for farmers to try some of the fancy breeds, but the most profit comes from adopting one of the general purpose kinds and breeding it straight. When about time for a setting of eggs to hatch, the nest and hen should be thoroughly inspected, and if there be a sign of vermin, all should be thoroughly dusted with sulphur or Persian powder. It is usually necessary to moisten eggs a little just before hatching in nests built "high and dry."

Chickens and turkeys should not be fed together. The chicks get more, the turkeys less, than their share.

Nearly all the diseases to which fowls are subject may be traced to overfeeding. A fowl that is constantly stuffed soon becomes disordered and deficient in digestion, thus wasting the excess of food. Exercise is the best antidote for overfed birds. Reduce the allowance, and compel them to work. Industry means a production of eggs, and the fowls will also keep healthy by having something to do.

Commercial.

FARMER'S ADVOCATE OFFICE,
July 3rd, 1888.

June, 1888, will be remembered by many for the extreme heat that lasted for some ten days, and while it may have been rather uncomfortable for some it certainly was most opportune for the crops. The previous cold, dry weather had stunted nearly everything, and the growth had been so slow that the wire-worms and cut-worms were getting the upperhand. But the showers and heat soon put things out of their reach. From all we can see and learn crops on the whole are looking well. Hay will be a short crop, but the copious rains last week will do much to thicken them up and lengthen the growth. Fall wheat has improved very much, and should we get cool favorable weather, so that the berry will be plump, and heads well filled, we may see a fair crop of wheat yet.

The Cincinnati Prices Current gives the "crop situa.ion" on June the 25th as follows:—

"During the past week the conditions have generally been favorable in the West for the progress of crops. In the Ohio Val'ey region there is getting to be need of rain, and if it does not come soon there will be serious injury to the corn crop in a considerable area. But the returns from our correspondents do not suggest any wide extent of unfavorableness at this date, so that the States of Ohio, Indiana and Illinois may be counted as still in fairly favorable general promise as a rule, although the growth is still backward. The corn crop in Missouri, Kansas, Nebraska and Iowa is generally in quite promising position, and doing well at this time, but in Minnesota and Dakota it is in poor condition. Advices in regard to oats maintain the good promise previously noted, and a production of 750,000,000 bushels seems to be almost assured. The spring wheat crop in Iowa, Nebraska, Minnesota and Dakota maintains good progress, conditions generally being quite favorable, the plant stooling and growing well. This is more particularly so of Minnesota and Dakota than the southern limits of the spring wheat area. The only apprehension now apparent in spring wheat is that hot weather may overtake it before it has advanced in growth so as to be safe from serious injury—but it is useless to place value upon such contingencies at this juncture. The winter wheat crop in Southern Kansas and Missouri is being harvested, as also south of the Ohio river, reports from which are irregular, but generally maintaining previous expectations in results. It is feared that the existing high temperature in the Ohio Valley region may prematurely ripen the grain without its filling well. The crop in Pennsylvania is doing exceedingly well, and States southward where harvesting is in progress report very favorable results in the yield of wheat. Taking in the whole situation as to wheat, it may be said that the past week has been a continuance of favorableness, with reference to progress of the spring crop and maturity of the winter grain, and previous estimates may be fully maintained without ground for any essential enlargement."

WHEAT.

The wheat market has ruled steady and a moderate amount of business doing, but chiefly of a local character. The position of affairs at this juncture is not such as to encourage expectations of any permanent advance for wheat in the near future. The situation of foreign markets is not such as to suggest urgency of wants to an extent liable to lead to any essential improvement in prices before the English harvest. This promises to be somewhat late, and present indications are not favorable to a full production of whe in that country.

Closing prices of wheat yesterday at Chicago for months mentioned compare with two previous weeks as follows :—

	July, 1888.	Aug., 1887.	Dec., 1887.
Yesterday	82¼c	82⅝c	85⅛c
Week ago	84⅝c	84¾c	86⅛c
Two weeks ago	85⅞c	85½c	86⅞c

At corresponding date last year the Chicago market was 72⅜c. for July. The afternoon market yesterday was 81⅛c. July, 81⅝c. Aug., 84⅜c. Dec.

Closing prices of No. 2 corn yesterday at Chicago for different months compare with one and two weeks ago as follows :—

	July, 1888.	Aug., 1887.	Sept., 1887.
Yesterday	50¼c	50⅞c	51⅜c
Week ago	53⅛c	53¾c	54⅛c
Two weeks ago	54½c	54⅞c	55c

Prices at corresponding time last year were 37⅜c. for July. In the afternoon yesterday prices were 49⅝c. July, 50¼c. August.

At the "Miller's Convention," held at Buffalo last week, a resolution was adopted with entire unanimity in favor of the abolition of the duty on Canadian wheat. The interest of American millers in this matter is not inspired by the cheapness of Canadian wheat as much as by its superior quality. What they seem to be longing for is Manitoba wheat, which they have to confess is the finest quality grown in the world.

LIVE STOCK.

The trade in live stock has ruled quiet, and prices fairly steady and somewhat better than this time last year by about one cent per pound. The following is the Montreal Gazette's report of the British live stock market on June the 27th :

"The British cattle markets have taken a decided turn for the worse and our cables to day reported weak markets at a general decline of half a cent. Hot weather, which created indifference among buyers, has been largely responsible for the break and as receipts from all quarters have been fair there were ample offerings, with buyers having the advantage. The Siberian's cargo missed to-day's market at Liverpool. Liverpool and London declined, while Glasgow advices were unfavorable. Liverpool reported a weak demand and slow trade at the decline. Prime Canadian steers were at 12c. ; good to choice at 11½c. ; poor to medium, 10½c., and inferior and bulls, 8c.@9½c. In London also trade was dull and demand slow, the prices cabled being about half a cent higher than in Liverpool. Refrigerated beef is cabled: Liverpool 4d. for forequarters and 6½d. for hindquarters per lb. ; London, 2s. 2d. for forequarters and 3s 6d. for hindquarters per 8 lbs. by the carcass. Following were the prices of prime Canadian steers in Liverpool on the dates mentioned:—

	1885.	1886.	1887.	1888.
June 25	15c.	13c.	11c.	12c.
June 18	14½c.	13½c.	11c.	12½c.
June 11	13½c.	13c.	12c.	13c.
June 4	14c.	14½c.	12½c.	12c.@12½c.

The London Canadian Gazette of June 14 says:—"Arrivals of live cattle for the past and current weeks have been comparatively moderate, and this, coupled with the efforts made to effect a clearance of the accumulated stock, has enabled sales recently made to show better average. In London, despite the good turn-out of home beasts, the Canadians sold on Monday would realize 6½d for top quality, other sorts making about 6¼d. and 6d per lb. At Liverpool a few sales were made in anticipation of Monday's market, which left about 450 available, and about 120 from Glasgow brought the total up to 570 head. Sellers, favored by the higher range of values current at Birkenhead, were anxious to improve upon previous quotations, but were only partially successful, and business on the whole may be described as slow with a slight advance. One or two exceptionally good lots probably touched 6¾d. per lb., but the average all round would not exceed 6½d. Coarser qualities ranged about 6d., and bulls 5½d. Our advices from Glasgow show that the extra shipment to that port had a depressing influence, and the highest quotation only gives 6¼d. Among the consignments there were numerous well-bred, finished animals, admittedly recognized as among the best shipped from Canada for years. For present and ensuing week the supplies are more evenly distributed, and should the weather continue favorable the probabilities are that 6½d. will be maintained for good classed cattle."

CHEESE.

The market for cheese has been a matter of surprise to all in the trade—both sellers and buyers. The cause of the "boom" in our opinion is purely speculative, and may lead to the other extreme later on. In the face of an enormous make and favorable weather with such copious rains, we can see nothing in the world to warrant the prices that are being paid. The Montreal Gazette says :—

"About the only thing that can aspire to certainty in the cheese trade at present is that the market has gathered additional strength, not because there is any legitimate reason therefor, but because speculation for the time being exercises the controlling influence. High prices were paid in the country to-day, Peterboro having gone up to 9⅜c., in view of which, prices here look unreasonably low. There can be no doubt, however, that the market is a strong one and that high prices are being paid in the country. The public cable advanced another 6d. to 44s., which advance is confirmed by private cables, which quote the market firmer. The private cables, however, are by no means bullish, and convey the impression that the strength here is viewed in an unfavorable light on the other side—in fact, some messages go so far as to predict that no amount of speculation, however ably conducted, can force the British importer to follow, especially as the majority has a lively recollection of the course of affairs last season when so much money was dropped, which crippled many firms. When Utica and Little Falls go at 8c. @ 8¼c. on Monday and up to 9⅜ is paid at a Canadian market the next day, some idea of the complexity of the situation may be conceived. Some of the difference, it is true, may be due to quality, but the discrepancy is so considerable, that other reasons must be sought for. These reasons appear to be of an unhealthy character, the more so as the leader of the Canadian boom has no following, former failures having rendered the small fry diffident about helping a leader whose former exploits were the reverse of successful. Again, it is now known that 10,000 boxes were sold short in London, Ont., and probably more in other markets, but judging by the country advices much of these short sales have been provided for, but at prices which show a heavy loss. Another point is that another prominent operator is bent on making the short seller pay well up, and as the fact is well known that high prices have been paid for small lots at every market, it justifies the inference that the present strength is due, not to a legitimate demand, but to disgraceful jealousy between leading firms, the party of the first part being compelled to buy, and the party of the second part endeavoring to force the price up without taking too much. Meantime the majority of the trade can only wait, and it is to be hoped that, in the best interests of the trade, the waiting will not be in vain. The market here to-day was strong and must be quoted ⅛c. better. It was claimed that 8⅝c. had been made for white. There was some enquiry for colored, which continued scarce, and it is probable that nothing would be sold below 9c. @ 9⅛c. White in New York yesterday made 8¾c.

	cts.	cts.
Finest colored	9 @	9⅛
" white	8¾@	8⅞
Medium to fine	8 @	8⅝

BUTTER.

The butter market has been quiet, and, aside from the regular local demand, which has continued fair, the market presents nothing worthy of note.

A leading Liverpool circular says regarding butter:—"No fine goods in Canadian offering Ordinary nominally quoted at 40's. to 70s. per cwt. Finest Kiel, Germany, 102s. to 108s. per cwt. Irish, Cork, firsts, 79s.; seconds, 77s."

The total shipments of butter from Montreal last year was 60,358 packages. In 1881 the shipments were 130,481, and since that date they have steadily decreased, while the shipments of cheese have increased from 551,847 boxes in 1881 to 1,104,065 boxes in 1887. This is making rapid strides and we may see this enormous amount increased this coming season by two or three hundred thousand boxes. The export butter trade seems destined to become almost extinct except for finest dairy and creamery, but even these are not going to increase very rapidly as long as cheese commands the attention and brings the prices it has the past three years.

Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the ADVOCATE, as our space is very limited. 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Correspondents wanting reliable information relating to diseases of stock must not only give the symptoms as fully as possible, but also how the animal has been fed and otherwise treated or managed. In case of suspicion of hereditary diseases, it is necessary also to state whether or not the ancestors of the affected animal have had the disease or any predisposition to it.

In asking questi ns relating to manures, it is necessary to describe the nature of the soil on which the intended manures are to be applied; also the nature of the crop.

We do not hold ourselves responsible for the views of correspondents.

Roaring—Curb.—1. We have a mare, eight years old, which, when walked fast or trotted a little, makes a strange noise in the throat and nostrils. I think some call it roaring. Is there any relation between it and the heaves? Is there any cure for it? We have only had her in our possession two weeks, and did not know that she was affected till after possession. 2 What would you advise me to do with a colt that got kicked on hock just below cap of joint, where curb originates? A swelling arose, which has not subsided altogether yet.—A. F., Clarksburg, Ont.

[1. The case is, as you expected, roaring. It is incurable, and not at all related to heaves. The former is seated in the upper part of the windpipe, the latter in the lungs. 2. Apply to the swollen part a blister composed of 1 part biniodide of mercury and 9 to 10 parts of lard. Three days after the application smear the blistered surface with lard or oil, and repeat the blister in 8 or 10 days.]

Trouble with Foals—Time to Cut Willows to Kill Them.—1. I am trying to raise colts, but most of them die a few days after foaling. I generally work my mares, and they very often let their milk run a week or more before foaling time, and the colts' bowels do not move, that is, the milk does not work through. Now I would like to know what to do to save them? 2. I have a line of willow trees that I would like to get rid off, and I would like to know when would be the best time to cut them to prevent sprouting? —J. B. Waterloo, Ont.

[1. As soon as you notice your foals to be constipated give them 1 oz. of spirits of turpentine, mixed with 6 oz. of raw linseed oil, and if this does not have the desired effect, give an injection of warm water with a little soap dissolved in it. See that your foals receive sufficient nourishment. If they do not get enough from their dam, give them a little cow's milk with a little addition of sugar, and diluted with water. 2. Have any of our readers been successful in finding the proper time?]

Preserving Eggs.—Could you inform me of the best plan to preserve eggs for winter use, and keep them fresh up to next spring? I would like to commence putting away some every week. My cellar is not a cool one, being dug out of sand and bricked up.—J. F., Barrie, Ont.

[One of the best and most convenient ways is to pack the eggs in boxes or barrels, surrounding the eggs with dry salt, taking care that each is completely enveloped by the salt. Turning these boxes end for end occasionally assists in the preservation of the eggs.]

Barren Black Currant Bushes.—I would be obliged if you or some of your correspondents could give me some information on the following:—I have a lot of black currant bushes in good order, which were loaded with blossom, but on examining them a few days ago, I can only find a berry here and there. The stems are there, but the currants are gone. Is there a worm attacking them? I can find nothing. I should like to know if others are the same, and what is the cause?—Reader, Granton, Ont.

[It is not likely that an insect is attacking your bushes. The trouble will probably be overcome by cultivating and manuring the ground, and pruning the bushes. If they are caught by a frost, when in bloom, the fruit is very liable to be lost. Perhaps their fruiting will be assisted by planting them in rows five feet apart. We would like to have the opinions of our readers on this question?]

Inflammation of the Legs of a Pig—Atrophy of the Muscles of the Legs and Chest of a Horse.—1. I would like you to prescribe a remedy for a Berkshire boar I purchased lately. The pig is now about five months old, and was lame on all the legs when I got him, and has ever since been getting worse. The feet of the forelegs are now so tender and sore that he won't walk on them unless he is forced to. He seldom eats anything; he never moves about; he lies down continually; has signs of great heat between the forelegs. 2. I also have a horse, sixteen years old, that has done no work since 1st April last. Previous to giving up work he showed signs of something being wrong, as he appeared stiff in the forelegs when backing. The horse was never lame an hour in all his life, until he gave up entirely. Both legs from the knee up gradually reduced and shrunk up so that there was nothing but the bone and muscle left. The thick part of the shoulder, directly above where the leg is attached to the body, shrunk very much. The breast fell in badly, and the animal could only move with the greatest difficulty. I thought when he got pasture he would probably get around again, but he has not improved in the least, and I am now of the opinion that the case requires different treatment than that I have prescribed.—F. B. W., Bay du Vin, N. B.

[1. Bathe the hot parts with warm water, and apply once or twice a day a liniment composed of 3 ozs. of tincture of arnica, 3 ozs. of tincture of camphor, 3 ozs. of tincture of opium, and 3 ozs of water, mixed well together. If possible give him a tablespoonful of sulphur once a day in his feed for eight days. Remove him to a clean, cool place. A clover pasture provided with shade would be the best. Let the food be cooling, avoiding grains, especially corn meal. 2. Apply to the shrunken part a stimulating liniment twice a day till it becomes rough and blistered, and after the effects have passed off repeat it. A good liniment to use would be two ounces each of turpentine, alcohol, and spirits of ammonia, thoroughly mixed with 6 ozs. of oil.]

Mare not Giving Milk.—A mare of mine carried her foal 11 months and one week and then foaled all right but had not the least sign of a bag or milk. Please tell me what you think would be the cause of this and whether it would be advisable to put her again to the horse. The mare worked moderately all winter and spring. We tried to feed the colt cow's milk; it drank very well, but only lived from Saturday evening till Monday noon. Please give the best method of feeding a colt in a case like this, and say if you know it to succeed raising colts by hand. I may say the milk was mixed with water—half cup of water, one cup of milk and a teaspoonful of sugar.—A FARMER, Orillia, Ont.

[There is no particular cause for the non-development of the bag of your mare. Such cases are generally improved after the foal commences sucking them. The plan you employed in feeding your colt is generally very satisfactory, but care must be taken to have the milk properly warmed. It is also advisable to give it a dose of six oz. of linseed oil mixed with one oz. of spirits of turpentine to loosen the bowels if constipated. If your mare is a good one it would be advisable to try her again.]

A young man in Michigan inoculated himself with that terrible disease, glanders, by striking a diseased horse on the mouth with the back of his hand, the blow making an abrasion of the skin.

Family Circle.

The Tide will Turn if You Bide a Wee.

The skipper stood on the windy pier,
"O, mate," he said, "set every sail;
For love is sweet if true and dear,
But bitter is love if love must fail."
"No hurry, skipper, to put to sea;
The wind is foul and the water low:
But the tide will turn if you wait a wee,
And you'll get 'Yes' where you got 'No.'"

The skipper turned again with a smile,
And he found his love in a bitter mood;
For she had had time to think the while,
"I shall find ten worse for one as good,"
So the tide had turned and he got "Yea."
The sails were filled and the wind was fair,
Don't limit the pleasant words, I pray,
They are for every one everywhere.

The tide will turn if you wait a wee,
And good's not lost if but deferred;
Supposing your plans have gone a-gley,
Don't flee away like a frightened bird.
Say that you've asked a favor in vain,
To-morrow may be a better day;
The tide of fortune will turn again,
And you'll get "Yes" where you got "Nay."

The tide will turn if the thing you mind
Is worth the waiting and worth the cost;
If you seek and seek until you find,
Then your labor will never be lost.
For waiting is often working, you see,
And though the water may now be low,
The tide will turn if you bide a wee,
And you'll get "Yes" where you got "No."

MYSTERIOUS MISS ALISTER.

BY THE AUTHOR OF "A WILFUL YOUNG WOMAN."

[CONCLUDED]

It was early winter before that point was reached. All through October Mrs. Gwynne had been prisoner up-stairs; some days only messages passed from herself to her brother, these always through Miss Alister. Constantly the pair had to meet, and the hours between the meetings were marvellously heavy to one of them, for fervour is not dead, young people in your teens who read this, even at forty!

In mid-November, when a bitter early winter was setting in, enlightenment came upon two of the trio at the Lindens in this wise.

An evening just over, when Helen Alister had been singing to Mrs Gwynne and her brother, he from behind the *Times* watching her every movement and expression, something queer happened as Colonel Grant left the house. Taking a quick turn from the doorstep past the drawing-room window, he nearly stumbled over a man, intent apparently upon gazing through a chink of the Venetian blind on the room within. With a stifled oath the interloper sped off.

The next day Colonel Grant announced that he should bid the Ashby policeman make a special tour round the premises every night, as, "Whoever this tall fellow may be, he would prove no joke if he ment burglary, and he must be collared if he tries lurking about any more. Luckily you're not nervous, Mary, and," anxiously, "I hope you are not either, Miss Alister?"

"Not - very." was the murmured response, belied, however, by tone and manner. For Miss Alister was excessively pale, even her lips, white and hard, pressed together.

Colonel Grant took instant alarm. "You *are* timid! and very naturally. I'll speak to the inspector at once; the house shall be watched; perhaps this scamp can be traced."

"Don't - don't on my account," entreated Miss Alister, with the frightened look Mrs. Gwynne had seen once before. "I am not the very least afraid of—burglars." Then she hastily left the room.

Herbert Grant looked puzzled. "Is she ill, Mary?" he said; "her face is perfectly white."

"I rather fancy," was his sister's reply, "that can be accounted for without illness. Miss Alister had a letter this morning. Whenever she has one, as surely as possible she's upset. There is certainly something odd about her."

The colonel caught Mrs Gwynne up very sharply. "Mary, mind what you say of some one who is not here to defend herself. I really think you owe a good deal to Miss Alister."

"And I should be the last to forget it," answered his sister warmly. "Still, as people said when she first came, she *is* mysterious, Herbert;" and our deep-in-love bachelor had to confess as much himself presently.

It was the same evening. The last post had just sounded its sharp knock on the front door of the Lindens, and Colonel Grant, entering the hall, found there Miss Alister, white as marole, leaning against the banisters just below the lamp, reading with terrified countenance a letter just received. Such a pitiable scared look she gave him as she essayed to go up-stairs, it brought him to her side instantly.

"Miss Alister, something is the matter. Let me know it. Let me share it. No, now, don't try and stop me. Come in here and listen."

He drew her *nolens volens* into the dining-room, and, making the trembling figure sit down, there told out frankly how he had learned to love his sister's friend, and how he wanted her to be his wife, and let him bear all her troubles, whatsoever they were. Twice, thrice she would have stopped him, but he made her listen to the end. Then she gathered up her forces, and firmly put him from her, answering him "Nay," with an anguish that defied all hiding.

"I must not," she said, tears coursing down her cheeks—"I *will* not marry you! Forgive me. I thought you were only kind to me. If I had seen—this coming, I would have gone long ago!"

She would say no more, hearken to no more, but, breaking from his detaining hand, went straight to Mrs. Gwynne, and told her, weeping, she must leave. Might she go quickly, and when?

Pained and bewildered, the poor lady questioned vainly. Nothing could she get from her companion but entreaties for pardon at thus vexing her. "But might, oh, might she go?" and at last reluctant leave was extorted for Miss Alister to quit the Lindens within a week.

"But for that week do try and get calmer and happier, whether or not you are able to tell me what has happened," begged the widow. "I should be miserable if you left like this. And then," hesitating, "then too, my dear, you must not seem to hurry off as if you were in disgrace. People would say unkind things. To oblige me you must still join that skating party to-morrow at the Bruces', and at least let every one see we part good friends."

For answer Miss Alister could only kneel down and sob out her thanks, promising she would try; and then, as Colonel Grant's step sounded outside, she glided away by another door, and avoided seeing him again that night.

It was to a house some two miles off Mrs. Gwynne was driven next day, indisposed for icy festivities herself, but determined all the world should see the excellent footing she and her companion were on to the last.

By the bank of the little lake her brougham drew up, and Colonel Grant, earlier there in his dog-cart, came forward. He had kept his secret and Miss Alister's strictly to himself. By-and-by he might tell one, when the poor girl was out of reach of possible sisterly comfort. Now he would not add a straw's weight to her care. In his own quiet, kindly way, "May I give you a skating lesson, as promised?" he said, and at Mrs. Gwynne's urging she alighted and went beside him—the last time she might be so walking towards the ice.

"I brought skates from Ashby," he said, making talk to cover their mutual agitation. "Will you let my man fix them on? Perhaps he will be less clumsy than I. He is a new servant just come on trial, but I shall not want him long now; as soon as the New Year comes I will be off to Lisbon, and then on to India. Here is a chair, Miss Alister."

She seated herself without once looking up; the colonel's servant knelt down, skate in hand, his shortsighted master watching that all was done right.

"Does that fit as it should?" he asked.

"They seem to do so, sir, if the lady finds them comfortable," said the man.

At his voice Miss Alister started violently. Her lips moved convulsively, she turned her face, rigid as marble, from Colonel Grant.

"Now, are you ready?" he said, extending his hand. His servant rising, with a respectful touch of the hat, kept his eyes fastened on the lady.

"Will you," she, with ill-concealed effort, just manage to ask the colonel, "please see if my—my glove is in the carriage?" And as he left instantly to do her bidding, she stood up, terribly pallid, and confronted the man-servant all o her skaters at a distance.

"Well?" she said slowly.

"Well?" echoed he, with a sneer. "Are you going to keep on the high horse as you were when you wrote last night, or do you mean to make my fortune and yours by paring off with this well-to-do chap?"

"I mean," her voice, vibrating with agony, "to bring disgrace on no one whom I—care for."

"Then," said the man, "as sure as I'm alive I'll pass the word around about us both: before you can get away from here."

"As you will," she said, ghastly as death; "that misery would be nothing to doing as you would have me do."

He gave one look, brimful of evil, at her set face. "Curse you!" he whispered passionately, "you shan't be spared now. Be off for your skating, you stupid fool! I'll back to Ashby before you, and set my news flying!" And this curious man-servant started towards the opposite shore, just as his master returned with Miss Alister's glove.

In a moment Herbert Grant saw something was amiss. "The cold is too much for you," he exclaimed; "we must git you back to the carriage. Giles, come here—quick!" The man took no heed whatever.

"Come back; do you hear me?" his master cried more loudly. The fellow gave an impudent toss of his arms. "It's not safe there, I tell you!" shouted the colonel; "don't go another step!"

But the man, unhearing or unheeding, went on his way for a few seconds. Then there was a sudden bending of the ice, a crackling sound, a wild cry for help, figures rushing up from all quarters in dire alarm.

"God help him! he has gone under," cried Colonel Grant. "Miss Alister——"

But Miss Alister's head slipped heavily on his arm. She had fainted out of all knowledge of present things.

When sense returned the scene was entirely changed. Miss Alister was lying on her bed at the Lindens, Mrs. Gwynne beside her—memory returning slowly. "Is it a dream?" she whispered, "or was that awful accident real?"

"Only too real," answered Mrs. Gwynne softly "but we want you to get better, my dear. Of course every one is sorry for him, but it is no use thinking of the poor drowned man"

"Drowned! dead!" cried Helen Alister, raising herself with a burst of tears. "Oh, Heaven! forgive me if I was harsh to him; he was my brother!"

At last in the moment's exited grief, the whole sad tale was told: how Robert Alister, his sister's senior of ten years, had disgraced his name by forgery when scarce out of his teens; how father and mother had gone broken-hearted to their graves: how he, when long imprisonment was past, had haunted his young sister's steps, extorting the lion's share of her varying salaries, tracking her from place to place, unblushingly threatening to air her relationship to a felon if she failed to satisfy his shameless demands. Coming to Ashby on some such mission, he had got scent of what was going on, and under a false name had taken service with Colonel Grant, the better to command the situation, and drive his sister into a marriage which should be a mine of wealth to himself. So this cowardly brother had proposed; but another had differently disposed.

When Helen Alister, wan and sad, but with the old hunted look gone for ever, met Colonel Grant some few days later, and would have bade him good-bye—since assuredly she must now go forth again to fresh loneliness—fate, she found, had better things in store after her ten years of drawn-out misery.

"There are to be no good-byes between us, foolish child," said Mrs. Gwynne's bachelor brother; "Mary and I have arranged all. None else know or ever need know what you have gone through. I will only remember it to love you more. The Denbighs will be home with the New Year to take care of Mary. I must be off to India again, and you must come with me, my darling! Have you anything to say against the plan?"

He drew her to him. Her full heart ached with thankfulness. "Had she anything to say against the plan?"

Nothing!

A Tonic.

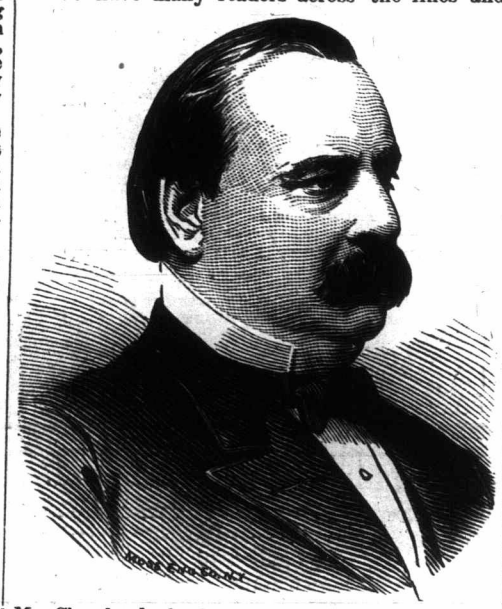
Biliousness is a term often used incorrectly, being regarded as a disease of the liver, instead of a condition brought about by indigestion and over-eating. Its symptoms are sluggishness and inactivity of the disgestive organs, derangement of the natural functions, sallowness and yellowness of the skin, a coated tongue and bad breath. There is an idea current that at this season of the year some nauseous medicine must be taken "to clear out the system," somewhat as the housekeeper cleans house, by turning everything topsy-turvey. The victims to this mistaken notion swallow pills, "tonics" and "bitters" at a dollar a bottle, and feel worse than they did before. There is a cheaper cure. Let medicine alone. Give nature a chance to effect a cure in her own way. Eat less, instead of more, and abstain from food entirely for a day or two, eating at most but a few mouthfuls of easily digested food. On rising in the morning, half an hour before breakfast, drink a glass of cool fresh water, or squeeze the juice of a lemon into a glass, add a scant teaspoonful of sugar, fill up with water and drink. The same is excellent at retiring. Lemons are cheap, cheaper than patent medicines or doctors' bills; you know what you are taking and that there can be no bad results. Physicians prescribe an acid to act on the liver; fruit juice is more harmless than the acids of chemistry. Lemon juice thins the sluggish blood and helps it throw off its impurities, it also stimulates the torpid liver. You can take them, prepared as above, with safety as long as the necessity exists, twice a day for three months, for instance, and in the slow and gentle fashion in which nature works her cures, they will be doing you good all the time. I know this to be true from experience.

Vests are worn with all dresses, broad or narrow, as best suits the figure. Broad figures should never wear broad vests, as they have a tendency to make the figure look broader, while slight figures can indulge in them as it suits their fancy.

Which Shall It Be?

Having previously given illustrations of our Queen, a recent Governor-General of our Dominion, and other leading representatives, we now give you the portraits of Mr. Cleveland, President of the United States, and Mr. Harrison, the Republican nominee. A fierce struggle for the President's chair is to be waged for the next four months between these two contestants, the result of which no one can foretell.

We have many readers across the lines and



Mr. Cleveland, the Democratic Candidate for the Presidency.

have made occasional visits to different parts of the States, and always met with the greatest courtesy; besides, there is a great commercial interest existing between the Americans and Canadians, and we believe a strong feeling of amity and good-will is rapidly growing between the two countries which we should like to foster. In fact, we believe that there are as many real admirers of the British nation in the United States as in Canada, and perhaps equally as loyal people. Despite these facts there are some that are bitterly opposed to the British nation; others on

Mr. Harrison, the Republican Candidate for the Presidency.

both sides of the lines would be ready to sacrifice anything that might be beneficial to the inhabitants of either country for the sake of the cash they might put into their own pockets, or for fear of losing positions they now hold. The increasing struggles and strifes that are continuously racking the United States by their Pesidential elections are being now looked on by many as unstable, unsatisfactory and dangerous.

By recent reports of the proceedings in Washington we must infer that a feeling of timerity and fear exists at their Capitol. For instance, after they have appointed their best men to arbitrate on the fishery dispute, they have been afraid to adopt the results of their own labors; also the strongest fears have been expressed on account of our having constructed the C. P. R. The existing Custom arrangements in Canada have been such as to induce a few to obstruct national intercourse apparently for the sake of the boodle they might obtain. Recent reports concerning Hiram Sibly, the Rochester seedsman, and Ayer, of patent compounds, are instances of its injurious operation. The postage regulations have been exposed very fully by James Vick, of Rochester. Whatever the results of the contest may be, we feel confident that a stronger desire to increase trade and amicable relationship with Canada, Britain and her colonies will exist. And let us hope that the time is approaching when a greater bond of unity will exist among the English-speaking population of the globe.

Marriage Presents.

Everywhere and by all sorts of people complaints are being made about the blackmailing that has come to be almost recognized as a matter of course in the way of marriage presents. Comparative strangers are systematically invited to be present on such interesting occasions for no possible reason but to extract a more or less valuable gift from them. It is a matter of no consequence if they cannot come. Indeed if all invitations were accepted there would be any amount of embarrassment on the part of the inviters. But then it is understood to be the right thing to send the present along with the excuse. In this way sometimes as many as hundreds are roped and the happy pair are blessed with what the newspapers call "numerous and valuable expressions of regard." All this is quite terrible and will need to be reformed or life will scarcely be worth the living. Occasionally this folly and sin acts unpleasantly in another way. Some few shy, modest people are nervous about it even being hinted that they gave even one invitation for the sake of a present, and they accordingly don't invite some whom they would be glad to have had present with them on the joyous occasion. Offense is in this way given when none was intended. We have known of such cases where the offense or supposed slight was not got over for years. As a rule, however, these are the rare exceptions. The custom, no doubt, began in good feeling and friendly wishes but it has ended in becoming a nuisance of a very disagreeable character. The only thing is to reform it out of existence.

What is true of marriage comes also to be all but equally so of funerals. The flowers sent in on such occasions are expressions neither of affection nor sorrow, but simply ostentatious sacrifices to Mrs. Grundy and the goddess of vulgar display. What with pillows, crosses, anchors and so-forth there is scarcely the possibility of a person being allowed to be buried in peace. The vulgar bad taste displayed in such exhibitions is execrable, but there is something even worse than that in the stupid fad. When will people have sense enough to recognize what is in accord with the fitness of things?

Parsee Children.

The Parsees, next to the Hindoos, hold the most important position in the Island of Bombay. They are descendants of the Fire Worshippers, votaries of Zoroaster. Compelled to abandon Persia by the successes of Alexander the Great, they finally settled in Bombay. At present they form a tribe of rich and active men, devoted to the English rule. The English language is in habitual use, and is spoken by their wives and children. The Parsees worship the sun, which they maintain to be the emblem of a supreme being. Their temples are of the plainest description, being generally large buildings containing a hall supported by columns, in the centre of which, under a dome, is the great altar, surmounted by a brazier, in which the sacred fire is burning. This fire which has not been extinguished for centuries, and which was brought from Persia by the early emigrants, is kept in by supplies of the costliest woods and most exquisite perfumes. The Parsees are generally of a gentle, conciliatory disposition, and cultivate the society of Europeans, their manners being an exact copy of ours. Their women enjoy as much liberty as Europeans. They are generally very pale, and sometimes exceedingly pretty.

PARSEE CHILDREN.

My Elder Sister

BY ANNETTE.

I often asked my elder sister to tell me why she had never married, knowing as I did, the fame of her beauty and popularity; but it was all to no purpose excepting the promise that I should know on my wedding night and with that I was obliged to be content. I had a great respect for my dear sister, and when, on the eve of my marriage, she handed me a little packet, I felt greatly honored by her confidence, and, kissing her sweet face, ran off to eagerly examine its contents. The packet contained two dainty letters, each written in a delicate girlish hand. They tell their own story. The first, from her old school friend, ran thus:

My dearest Kate: New York, May 8th.

I have stolen away from all my chattering cousins to write you a few lines. Just think, Katie dear, it is two years since we graduated and vowed eternal friendship, and you have not yet made me that long promised visit. I have been looking for you so long and am really becoming a little vexed. I went to call on your aunt yesterday, when she told me that you had finally refused all her offers of adoption. I felt so bad I could have cried all the way home; but, of course, it wouldn't do for a New York belle to go "blubbering" through the streets in that way, though indeed, I've felt really sick ever since. Just think of all you loose—such social privileges! And we do have grand times; besides, do I not know half a dozen young fellows who still remember sweet Miss Katie and would gladly lay fortune and all at her feet? You are hiding your light under a bushel off in that country place, working for all those rough boys. Really, it is wrong. What will they care for you, when they are grown and out in the world? You will just be left at home, old and care-worn. Think of it, dear, and do write and promise you will at least, spend this summer with me. What fun we would have! I know this is an exceedingly rambling letter, but such conduct is enough to weaken the strongest nerves. Here comes a whole troop of girls, and I must close. Write soon to your anxious SOPHE.

P.S.—Papa has given me the loveliest black pony and has one just like him in view for you. Think of all the canters we will have.

The second was a reply from my sister.

My darling Sophe: Laurel Grove, May 15th.

Yours of the 8th created quite a disturbance in my own feelings, and doubtless would in the minds of all the others, if they knew anything of it. To tell the truth, I had the blues all day. I wanted so much to go that I almost told mamma; but I knew she would insist on my doing so, even though she is completely tired out, and so I cried it out by myself. I was fully expecting to make you that visit this summer, but who should appear on the scene but papa's maiden aunts, Samantha and Matilda, to recuperate their strength during the next three months. And how could I leave dear tired mamma to do all the work? I do wish truly to be her right-hand helper, and how can I fulfill my trust, if I run away and leave her to bear the brunt of the labor. I feel deeply thankful to aunt Martha for the good education she has given me, and also for her kind offer to make my home with her; but I believe this is my place now. Here are my six rollicking brothers and my little sister who cannot have the advantages I have had. It is only right that I should endeavor to share my education with them. I do not believe they will grow up and forget me, dear thoughtless fellows though they are, and really, I flatter myself that I am quite a help to mamma in her house-keeping and to papa with his accounts I wish you could have seen studious Katie doing the week's baking to-day. It is hard work, but I am learning to be happy in it. Don't you remember how we used to talk about bearing our crosses? I think this is mine, and should I not try to be a brave soldier? Now, dear Sophe, I must close this homily which I am afraid has wearied you. I hate to disappoint you worse than anything. Give my love to all the girls, reserving a big portion for yourself. Yours, most affectionately, KATIE.

Forty years have passed away since those letters were written. It was but the next summer that Kate was left to bear her burden quite alone by the sudden death of both mother and father. I can realize now how much she gave up in withdrawing entirely from society and devoting herself to all of us children. Was her life wasted? Did the boys forget her? I wish you could go with me when we all gather during the ho'idays at the old homestead. It does one good to watch her. Silver-haired Kate now, with the same sweet smile, the centre of a group of rollicking children or the confidante of strong men of the world. Is it not a reward for her in this world, the loving homage of these noble men? Who could not bear the cross for such a crown?

Minnie May's Dep't.

MY DEAR NIECES:—Every farmer's wife keeps a few fowls, and they might be made a source of great profit by a little management, if housed in winter instead of being allowed to roam through barns and outbuildings at their own will, often lodging on a rafter of the barn, famished with cold and hunger for days together. I will not recommend any particular breed of fowls, only the larger breeds are the proper ones for the country, as they cannot fly, and a low fence keeps them penned. The common barnyard fowl, as it is called, is better adapted for all purposes, but the Plymouth Rocks are good layers and good setters, and take better care of their chickens, the short time they stay with them. While the weather is warm, have one of your outhouses prepared for their reception in winter, by having it warmly lined with felt or boards, provide roosts not more than six feet from the floor, and they should be round poles, at least six inches in circumference, so when they sit on their feet they can cover them and their toes will not freeze, wrap the roosts with old carpet or wollen stuff, for warmth, the feeding trough should be long and narrow, and nailed to the wall so they cannot scratch their grain out. Soap boxes make good nests, and are preferred to nests built in tiers, they are easier emptied of the dust and broken straw that will accumulate in them.

Before the frost sets in, and while the ground is dry, have a large wagon load of sods placed in one end of your hen-house, cover the top with pieces of boards so the fowls will not scratch them down; these sods will give them all the sand, gravel and roots they require for winter. As soon as the hard frost begins, put all your fowls into this room; feed once per day with wheat, oats, or buck wheat, and only give as much as they will peck up clean by night, this you can ascertain by observation; give hot water twice per day, and about twice per week feed a hot meal of boiled potatoes, turnips or pumpkins

mixed with a little crushed grain. Never feed corn to hens, it will fatten them and prevent their laying. All the refuse of the kitchen may be fed to them, scraps of meat, parings of app'es, etc. A box of ashes may be placed in the floor, in the sun if possible, to dust themselves in, or slaked lime is better. Shut your fowl house door tight every night and keep them as warm as possible. All this seems a great deal of troub'e, but you will be well repaid when your hens begin to lay the first week in December, and continue to lay when eggs are best worth selling; that is, when prices are highest. Your large breeds will begin to set early, and as they are very steady setters, remove them to a separate house so other hens will not disturb them, and feed liberally. Early chickens will reward your care, and if hatched the end of April, you have marketable chickens about the middle of July, that you can readily obtain high prices for.

All these directions seem very long and troublesome my dear nieces, but success depends upon working up the details now-a-days, and I would like to know that more of you managed to make this particular industry a success. There is no hard work about it, and a pair of warm woolen mittens will protect the hands from cold. All the care of fowls is strictly feminine, and any woman should take delight in it, apart from the fifty per cent. profit that can be derived from it.

Ducks and geese are easily reared, for they live almost upon grass during the summer months, and where a spring runs through a farm, even the young ones require no care, and they can be fattened for market in a few weeks at a small cost.

MINNIE MAY.

Fashion Notes for July.

Some of the daintiest tea-cloths are of fine linen. The edges are hemstitched, and a border of wild roses worked all around in white cotton thread. As great care is given to the workmanship, they are quite prominent, although the cotton is the exact shade of the linen.

White leather gloves are not likely to obtain favor, unless it be for carriage wear, or to wear with a white dress. They make the hands look large, and are very much out of place upon the street.

Black veils having a square mesh and dotted with tiny beads of all colors, are worn by young people who find them becoming.

When your bright colored parasol looks a little faded, cover it with lace—black or white. Any young girl handy with needle and scissors can do it. Add some bows of bright ribbon to the top and handle. Wide lace flouncing is excellent for this purpose.

A fancy pin of either gold or enamel is worn in the bonnet-tie, seeming as if pinning the bow in place.

Seer-sucker makes the prettiest material for little folks' clothes. Dresses and pretticoats, trousers and coats for the little brothers are made of it. It washes well, and requires no ironing. A good shaking before drying is sufficient. It comes in all colors, and at very low prices.

Bustles are still worn, but not so large as formerly. Reeds are worn in the skirts, run into a casing about half way down, which gives the skirt a good position, and prevents it touching on the heels when walking fast.

Brown in many tints is worn. It is suitable to every occasion, and certainly is very lady like.

Almost all hats with rims have the rims caught up behind with a loop of ribbon. It relieves the stiffness of a narrow rim, and makes it more becoming to the majority of faces.

The liking for red seems as great as at the beginning of the season. The brilliant shade that positively wearied the eye is not so much favored as the less conspicuous tones.

A combination of rose and apple-green grows more and more in favor, but these two dainty shades are usually relieved by lace or tulle.

A smart bodice for home wear is made of red foulard, trimmed with coarse white or cream lace Grey and white is still a favorite combination. Buckles are seen on some short jackets instead of buttons.

Inexpensive dresses for summer will be made of Victoria lawn, or of barred muslin, which is again in favor, with a belted blouse and a full, round skirt of straight breadths, from four to four and a half yards wide. These dresses, when worn with the end of the basque thrust under the skirt and completed by a soft, wide sash, are similar to the Empire dress, and are little more than the house maid dress, so much worn a few years ago. A pointed yoke is added to the front of white nainsook waists, and this may be made of embroidery, or else clusters of tucks, with insertion between ginghams, chambrey, lawn pereale, and all washing fabrics are being made up with the blouse and gathered skirt, with perhaps a band of Hamburg insertion for collar, belt and cuffs. This simple design is easily laundried, and is becoming alike to large and to slender figures.

Pinking has not come into general favor for dresses. It soon grows ragged unless the dress is of thick, cloth-like texture, but it finishes felt table-covers or lambrequins for mantels.

A toy drum, with a plush or satin cushion fitted into its head, makes a pretty and not too troublesome birthday gift.

Recipes.

CREAM PUFFS.

One and a half cups flour, half pint water, five eggs, one cup of butter. Boil the water and butter together, pour in the flour and stir smooth; cool a little, then add the eggs well beaten; bake half an hour to a light bown. This quantity makes about twenty-four puffs. For the filling you require one and a half pints of milk, two eggs, a little gelatine or corn starch to make it stiffer; flavor with a little vanilla.

CORN MEAL WAFFLES.

One cup of corn meal, one of flour and one heaping teaspoonful of baking powder sifted together; add two teaspoonfuls of sugar and one of salt, the beaten yelks of three eggs, and one and a quarter cups of milk, then the beaten whites, and lastly, a tablespoonful of melted butter. Bake in waffle irons.

DELICIOUS PANCAKES.

One quart of cream and sufficient flour to make a thin batter. Cook on a griddle.

SUET DUMPLINGS.

Four ounces of kidney suet chopped fine, one half pound of flour, and a teaspoonful of salt and one of baking powder. Mix with water to form a soft dough; rub in balls and steam an hour.

CORN MUFFINS.

Mix together a pint of corn meal, a teaspoonful of salt and two of sugar; scald with a quart of boiling milk, and when cool, stir in the yelks and whites of four eggs beaten separately. Bake in shallow bread pans, gem tins or muffin hoops.

CORN PONE

This is the favorite way of making corn bread in the Southern States:—Mix a teaspoonful of sugar and salt with a pint of corn meal; scald with a pint of boiling water, and let it stand until lukewarm; add half an ounce of corn-pressed yeast dissolved in a little warm water. If your dough is too stiff, reduce with a little water; put in a well-greased baking-pan, and let it rise at a temperature of about eighty degrees for four or five hours, or until light, and bake till thoroughly done in a moderate oven. This is nice toasted even when several days old. Milk can be used instead of water in making any kind of corn bread, and is preferred by many people. It is difficult to give the exact proportions of meal and water in making corn bread, as so much depends upon the quality of the meal.

TO KEEP EGGS FOR WINTER USE.

Put one pailful of water into an empty butter-tub, add one quart of salt and one pint of lime; stir well, and put in your eggs as you collect them, using an old dipper for the purpose. If fresh eggs are put in fresh eggs will come out.

CORN CRUSTS.

Scald a pint of corn meal into which a teaspoonful of sugar and salt have been mixed. When sufficiently-cool, stir in a well beaten egg. Spread thin in a greased pan, and bake in a quick oven.

SOAP.

Put into four gallons of water, boiling, six pounds of washing soda and three pounds of unslacked lime. Let them stand until perfectly clear, then drain off, and add six pounds of clean fat. Boil for two hours, or untll it begins to harden, and stir a good part of the time. While boiling, thin from time to time with about two gallons of water, which has been poured over the alkaline mixture, and allowed to settle. Just before taking from the fire add a cup of salt. Turn into a tub, and when cold, cut into small pieces.

HARD SOAP.

Take six pounds of sal-soda, three pounds of stone lime. Put in a boiler with four pailfuls of soft water, and simmer s'owly two or three hours. Let it settle, then pour off the clear liquid; add one more pailful of water, six pounds of grease, one teacupful of salt, and boil until it becomes soap. Pour into a tub to cool. Cut in pieces.

HARD SOAP.

Six pounds of clean grease, six pounds of sal-soda, and three pounds of stone lime. Put these into four gallons of water, and pour off the iquid. When dissolved, add the grease, and boil a few minutes. If the soap does not come after boiling a few minutes, add more soft water. Wet a tub and pour in the soap. Cut into bars and lay away to dry. Always make soap in an iron kettle.

IVORY SOAP.

Four pounds of clean grease, one pound of Gabbett's potash, four ounces of borax, and two ounces of dry ammonia. Dissolve the potash in three quarts of hot water, then add to it the borax and ammonia. Warm the grease and add it to the hot mixture. Let the whole boil for five minutes. Set off in a cool place, and stir for half an hour. Cool in a square box or pan.

Toilet Talks.

FRECKLES, WRINKLES, ETC.

It has been said that there was never created a woman who was so absolutely ugly, but that she could, with wise treatment of herself, succeed in making herself at least passable in appearance. A proper amount of time and attention should be given by every woman to the care and preservation of her personal charms. A satisfactory result, of course, demands attention to details and things of apparently little importance.

Freckles are generally thought to be very disfiguring, and there are many remedies recommended for their removal, but there are none that will banish them entirely. The following remedies will aid very much to their disappearance, if faithfully used. It will be labor lost to apply them "now and then." A simple remedy is one-half drachm each of powdered borax and sugar and one ounce of lemon juice. Mix well, and apply to the freckles occasionally with a camel's-hair brush.

Another good wash for freckles is made by dissolving three grains of borax in five drachms each of rose-water and orange-flower water.

Those troubled with pimples and acne—black spots in the skin—should live on plain, nutritious food, avoiding everything of fatty nature. Bathe the face in salt and water and rub thoroughly with a Turkish or crash towel till it is dry and tingling. They will disappear under this treatment if persevered in.

Wrinkles are not desirable possessions, yet many have them. To avoid early wrinkles, avoid loss of sleep, excitement, and indigestible food. On their first appearance, they may sometimes be driven away by putting a little olive oil on the face at night and gently rubbing and pinching the flesh for a few minutes. The following wash used three times a day will be found beneficial. One ounce of glycerine, drachm of alum and one pint of water. Mix thoroughly.

To remove the effects of sunburn, wash the face at night with sour milk, and in the morning with weak bran tea, and a little eau-de-cologne. This softens the skin and removes the redness and also makes it less liable to burn again from the exposure of the sun.

As a remedy for the roughening effect of sun and wind, take powdered borax, six drachms, glycerine, three-fourths ounce, rose-water, twelve ounces, mix. Its daily use as a wash renders the skin soft and white and prevents sunburn.

If the skin lack clearness and color, try the following prescription, which will make it "like unto a rose-leaf." Take three ounces of ground barley and mix to a paste with the white of an egg. Spread thickly over the face at night, laying thin pieces of linen or lawn over it, and wash off in the morning with warm water. Repeat this for three weeks, when the skin will be found white and soft, and then it will be necessary to use the application only once a week.

If the skin is brown and sallow, the liver may need treatment. If it seems very dry rub it occasionally with pure olive oil.

When bathing the face, the eyebrows should not be rubbed too hard or brushed the wrong way. They may be thickened and darkened by smoothing down every night with vaseline. If already too thick and bunchy, subject them to a course of treatment. Brush them every morning with a soft nail brush, then carefully comb with a fine comb. This will make them lie flat and smooth.

An excellent cold cream is made of one ounce of white wax, half an ounce of spermaceti, and half a pint each of oil of sweet almonds and rose-water. Melt these ingredients together over the fire, and beat until cold. One ounce of honey may be added, but it prevents it from being beautifully creamy.

A very common habit is that of biting the under-lip, but it should be avoided, as it causes the lip to swell and thicken, so as to look coarse.

For fever spots or cold sores, as they are commonly called, hot water is the best remedy, used as hot as can be borne.

For cracked lips use the cold cream, as given above. For pale lips, use the following salve: Melt together one ounce each of white wax and sweet oil, and one drachm of spermaceti, adding a little alkanet root. While cooking, add oil of rose to perfume. Pour off into little jars and keep for use.

ESMA RAY.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—I am very glad to learn that you were all so interested in the letters which were published last month. It brings us nearer together when we have an idea of one's home and surroundings. This month I shall publish a few more on the same subject, and later on we must have some more in a little different style. I hope each one whose letter was printed has received a prize. I have not heard as yet from you all, though I forwarded your awards some weeks ago. A letter from Miss Ada Armand to hand, which I shall be pleased to give you. I must be brief this time. Next month I hope to give you something interesting.

UNCLE TOM.

MY DEAR UNCLE TOM,—About four and a-half miles from Montreal, and about the same distance from the grand old river St. Lawrence, is my home; in the front of which, is the orchard, the trees of which, are beginning to send forth their leaves, and I think that there is nothing prettier than to see the little birds hopping about from branch to branch and singing their merry songs, as if thanking God for bringing back the spring. Beside it is a little pond with its smooth clear water upon which the ducks swim, diving up and down in search of food, and in the evening we hear the croaking of the frogs. On the opposite side of the road is a quarry, in which many workingmen labor. Their tools are wedges, levers and picks; they bore a hole in the stone, then fill it up with gun-powder, light it, and then a great noise occurs; this part of the work is called blasting, by means of which the rock is broken into pieces. It is then raised into wagons by means of derricks and conveyed to the city and sold for building purposes. The grass is looking beautiful everywhere just now, and cows will soon be out grazing. Farmers are very busy plowing, rolling, sowing seed, etc., and they are glad when night comes so that they can take a rest. Women are just as busy too—some house-cleaning, and others preparing their flower gardens and getting ready for summer. This neighborhood is chiefly inhabited by French Canadians, with a few English families living among them, too few to support a school of their own, and, therefore, we have to walk nearly two miles to the nearest dissentient school, which is very pleasant except in disagreeab'e weather. Soft maple trees are grown around here chiefly for shades, and groves of other trees adorn the landscape. Among these trees are also little May flowers of nice colors and scents peeping up, and these we gather into boquets and give them to our teacher and friends. We can play out doors now at ball, croquet, swing, and-so-forth, and it is very good fun. I thank you for the kind interest you take in us children, in trying to teach us to observe everything that is going on around us, and giving us some puzzles and reading in the ADVOCATE, which we find both interesting and instructive.

I remain, dear sir, sincerely yours,

BARBARA J. SCOTT (age 12).

Cote St. Michel, P. Q.

DEAR UNCLE TOM,—As you wished to hear from all your nephews and nieces I thought I must be one of them, so I will begin my picture. My home is near Collingwood, along the Northern railway. We have a real mountain not far from us—a lovely mountain, too; I wish I could tell you how beautiful it is—also a good church, school-house and splendid Sunday-school. We live quite a long way from the road, and nearer the railroad track. There is an old log house near the road; I don't know who lived in it. My little brother and myself often play there in summer. My mother says a home should grow more beautiful each year, just as the children grow larger. She says we must each one do something to make it look prettier—I think she does her part. I wish you could see the lovely flowers she has planted. They did not come from Scotland, but most of them came from grandpa's, in Prince Edward county, near Picton. There are so many kinds I could not tell all of them. There is a crown imperial just coming out now. There are several kinds of peonies, tulips, lilies of the valley, and lots of others. Such beautiful double white roses and pink ones. We can gather wild flowers and berries, too, along the railroad track. There is the Batteau creek and mill pond only a little away, where the boys fish and have great sport. You all left your homes, but I don't like to think I shall ever leave mine. How I would like to just peep over your shoulder and look at all the pictures—I should want to hide mine. I suppose we will see some of them by-and-bye. I wish I could send you a better one. Good-bye for this time.

GERTIE E. RICHARDSON (age 10).

Batteau, Ont.

DEAR UNCLE TOM,—In your last issue, you desired some of your nephews and nieces to write a composition on "Home Surroundings." Being included as a niece, I shall have the pleasure of describing my "Home and its Surroundings." First of all, I must tell you that my home is situated on the banks of the mighty St. Lawrence, a little east of the town of Morrisburg. It is somewhat quaint and old-fashioned on the exterior; but the clinging tendrils of the ivy-vine and honey-suckle brighten up its outward appearance, by giving it that charming aspect, which is generally seen on the home of a retired gentleman.

Well, here it is that I live, where I always have, and I think I always shall live—instead of

wandering away from the dear old homestead, as so many young people do, thus losing that sweet memory, which binds me, as a child, to my old home. It does not matter where I go it seems to me that I never see exactly the same things like those around the old familiar spot. There are the great barns that are built on the rear of the estate, and I am going to say that we have one barn on our land that has stood the tempest and storms for one hundred years. It is built in an old-fashioned style and stands very high, towering above the rest, and in which we keep many kinds of articles, because it is so near the house. We have lots of ducks and turkeys; and of course, we have all kinds of farming implements, and almost everything else which is needed on a large farm. We have many acres of fine high land, some of which is pasture land, others corn fields, wheat fields and potato fields, which will soon be laden with a rich harvest, each producing its kind which was sown—weeds also. Then we have a lovely flower garden, which is beautifully adorned with roses, dahlias, snow balls, pansies, geraniums, lilies, etc.; and in one out of-the-way corner, where none but a wanderer chances to see, the modest violet hangs its purple head, and fills the air with its sweet refreshing perfume, as much as to say, "I have flourished here in days gone by, I'll do so now, as this is my little home away from the din of the busy town." Then we have a vegetable garden, which is well planted with potatoes, carrots, onions, celery, tomatoes, cabbages, in fact everything which is used for the culinary arts. It is lucky for me that I was brought up in this particular place, as we have those things which are both requisite and necessary for our health and home. I have much to be thankful for; everything that I desire is mine; and the home that now opens its portals to me will ever be one of my happy reminiscences of old age, should I be spared to such. Directly facing our house flows the river St. Lawrence, in all its grandeur and princely majesty, showing to good advantage its deep blue waters as clear and sparkling as crystal; we are all proud of this great and noble river, which belongs to us as Canadians, not only because of its hereditary right, but because it always has been Canada's great pride and stay, and always will as long as its streams shall flow. It is here, that my schoolmates and I go out to play on the floating rafts, which are constantly passing down the river after the breaking up of the ice from the long and dreary winter; or we take our skifl and go out upon the bay in the still, clear water for a row; or should we desire to stray from the limits of our home, and wish to see a little more of the world, than is our usual wont, we steer straight out into the stream and row across the river until we land on the shores of that great republic called the United States of America. Here we can enjoy ourselves to our hearts content, and as the dim shadows of the evening begin to fall, and the grey twilight appears, we are reminded of our home, which is luckily situated in this lovely province of the vast Dominion. Morrisburg, for its size, is a very fine place; it is very healthful and cheerful, and does quite a lot of its trading and commerce by the river, as well as the railway traffic. We have some very good public schools here and a very fine high school, which has about two hundred students. The stores are very handsome and numerous, and our post office is a credit to our town, whilst our bank is second to none in Ontario. Well, I think I have enumerated most of the particulars, pertaining to my "Home and Neighborhood," and should you ever pay our quiet town a visit, I trust you will call upon me, and realize for yourself the lovely home of which I am one of its happy inmates. Trusting I may long be spared to enjoy its pleasures, and wishing you the same in your home,

Believe me, your sincere niece,

E. EULALIE FARLINGER.

Morrisburg.

DEAR UNCLE TOM,—As I sit on the balcony at home this evening gazing around me, I feel that could I artistically describe my surroundings they would make a very beautiful picture. Never before did I half realize the beauty of my home, till now, at your request, I am trying to make a picture of it. My home is situated on the banks of the beautiful Bay of Quinte. Opposite is Amherst Island, now rich with verdant fields and dark green foliage, also the upper gap, through which can be seen a large portion of Lake Ontario. "Maple Grove" is the name given to my home, because all the trees in the grove are maple but one oak, which is prized more than all the rest because it is so old and large. When we sit in the grove it is generally under that old treasured tree. The house is brick and large. In the front is the piazza, over which is the balcony, and two French windows on each side opening out on small smoking galleries. The soft, south evening breeze is blowing across the gap and stirring the newly-opened leaves on the trees, whose slight rustling sounds calm and peaceful. As I look down I see mother sitting in the rustic chair watching the children playing around her. Two little sisters are swinging under a tree, and Spring, a large black dog, is lying near them. Two brothers and sisters are having a very exciting game of croquet, by the interest they seem to be taking in it, and the merry peals of laughter that float through the air every few minutes. As the sweet smell of apple blossoms are blown up to me I turn my head and see, a slight distance off, the orchard, now pink and white with blossoms and green with clover on which the cows are quietly grazing. On one side of the house is a bower of plum trees in which the children have their play-house. They are almost completely screened from view by the short sprouts that have grown up The tall trees and branches make a thick roof, and it is cut inside in the shape of four oval rooms, with a hall running through it. The steamer "Hero" is just passing on her daily trip from Kingston to Picton, and white sails can be seen far and near. The sun is sinking and its last rays have faded from the trees as my father comes out on the lawn—which seems to complete the picture—and sits down by mother. How they enjoy this hour of rest after the long, tiresome day of hard work. "Home, sweet home, be it ever so humble there's no place like home." This is a true sketch of my home composed and written by

Your respectful niece,

EMMA DENNEE (age 16).

Bath, Ont.

DEAR UNCLE TOM,—I hope you will excuse me for not earlier acknowledging the receipt of a beautiful pair of vases. I wish to thank you very much for awarding me such a nice prize for my little poem. I have kept the large vase full of flowers in honor of you. Such kind encouragement as you give your nieces cannot fail to produce good effects. I felt rather diffident about sending "My Home," but will have more courage next time. Sincerely yours,

ADA ARMAND.

Puzzles.

1—STAIR PUZZLE.

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The steps form five half squares.
1. To defraud. 2. Temper. 3. To devour. 4. A kind of grain. 5. A kind of deer. 6 To wander. 7. To cry. 8. To supply on condition of a return. 9. To stop. 10. To perspire. 11. To sharpen. 12. Before. 13. To handle. 14. A tear. 15. A man's name. 16. Near. 17. In steam.

HENRY REEVE.

2—TRANSPOSITION.

Runes ton a drugeg ron defe a tipse,
Relefy gorvife ahec hotre,
Royu yrapre liwl veern og hitgar,
Hte liwhe hatt ouy tahe ouyr robthre.

A. T. REEVE.

3—DROP VOWEL PUZZLE.

L-t -s, w-th y- - - f- -r f-t-r· d-v-n-ng,
H-p- th-t b-t j-y m y -r- -nd y- - -nf-ld,
S- th-, -t l-st, wh-n l-f-'s s-n -s d-cl-n-ng,
N-'-r y- -'ll r-gr-t l-v-'s sw- -t st-r- w-s t-ld.

HENRY REEVE.

4—TRANSPOSITION.

File si tub het litwigth fo yoj dan fo desnsas,
Glimdne thergote eth swtor nad eth sbet,
Vole, kognoil worfard, eses ginonht tub daslesgn,
Mite anc leoan swearn how ear teh letbs.

HENRY REEVE.

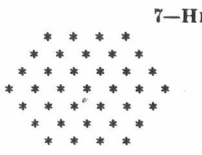
5—ILLUSTRATED REBUS.

6—CHARADE.

In the papers I appeal,
In the oven I'm there,
I assist in fanning a flame,
Kind reader, now my name.

AMOS HOWKINS.

7—HEXAGON.



1.—Nothing.
2.—A clyster.
3.—To find again.
4.—Forboding evil.
5.—To prepare.
6.—A blockhead.
7.—To oppose.

FAIR BROTHER.

8—NUMERICAL ENIGMA.

My 6, 4, 5 is more than one,
Perhaps you think I am in fun.

My 5, 2, 3 is less than one,
If you seek you will find it none.

A shipwrecked sailor cast ashore,
It may be on a 2, 1, 3, 4.

To find out if he is alive,
Why just 3, 2, 1, 6, 4, 5.

And if you find him quiet, he
1, 2, 3, 4, 5, 6 will be.

FAIR BROTHER.

9—HIDDEN FLOWER.

1. Oh, what an untidy letter, Philip; ink blots everywhere; you must write it again.
2. Make haste, Rosa, or you will miss the train.
3. Our beautiful cook's comb is frozen; what a pity, it was such a lovely one.
4. Look at that cow slipping about on the ice; it looks as if it was going to fall.

BEATRICE M. MATHIAS.

10—CURTAILMENT.

With powder and shot,
And I know SECOND what,
The Germans marched off to war;
They first laid a plot,
To catch the whole lot
Of Russians, and, perhaps, the Czar.

To FIRST it down fine,
They formed into line
For fear that they routed would be;
Their armor did shine,
And this was their sign,
To follow their captain's decree.

We marched them uphill,
While yet under drill;
There is LAST time to loose, quoth he,
That is if we will
Our errand fulfil,
Or ever become TOTAL; you see?

FAIR BROTHER.

Answers to Puzzles, June, 1888.

1.—
SHY
SAD
ANT
THANKLESS
HANKERING
TOLERABLY
SIR
ANN
AGE

2.—MIASMA
SAHARA
MATING
DESIRE
DESERT
NEWEST

3.—(1) Hornet. (2) Bee. (3) Wasp. (4) Ant.

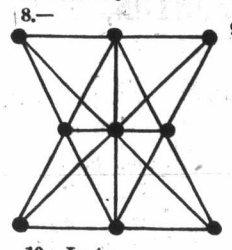
4.—What is past is past forever,
Let all fretting be resigned;
It will never help the matter,
Do your best and never mind.

5.—Truth is mighty and it will prevail.

6.—Scrape. Crape. Rape. Ape.

7.—All may do what has by man been done.

8.—



9.—
DISSIPATION
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10.—In-to.

Names of those who have Sent Correct Answers to June Puzzles.

R. Eulalia Farlinger, Earnest Ramsay, A. Russell Boss, Amos Howkins, Nancy M. Silcox, Frank Riddle, Wm. B. Anderson, Libbie Hindley, Carrie Sheeres, A. T. Reeve, Emma Dennee, Cecelia Fairbrother, Hattie Robinson, Helen Connell, Robert Wilson, Henry Reeve, Jessie Stuart, Geo. H. Greene, E. A. Ferguson, Jane Campbell, M. G. Crane, John Milner.

NEW ADVERTISEMENTS.

SPECIAL NOTICE.

THE FARMER'S ADVOCATE refuses hundreds of dollars offered for advertisements suspected of being of a swindling character. Nevertheless, we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can, in the nature of things, be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery.

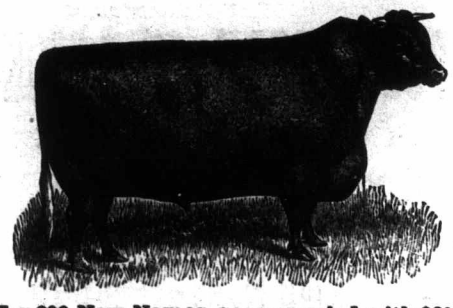
ADVERTISING RATES.

The regular rate for ordinary advertisements is 25c. per line, nonpariel, or $3 per inch. No advertisement inserted for less than $1. Special contracts for definite time and space made on application.

Advertisements unaccompanied by specific instructions inserted until ordered out, and charged at regular rates.

The FARMER'S ADVOCATE *is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for an advertising circular and an estimate.*

Shorthorn Bull---Value $150.



For 200 New Names, accompanied with $200, we will give a **pure-bred Shorthorn Bull,** bred by

JAMES GRAHAM,

Port Perry, Ont., a very extensive breeder of

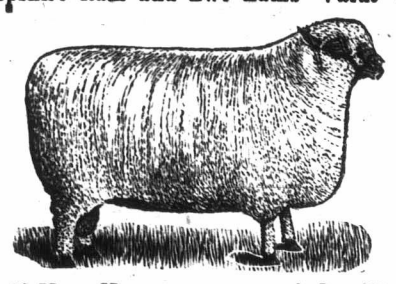
SHORTHORNS and COTSWOLDS

His herd now numbers upwards of 100 head.

Highly bred milking strains are his specialty

The bull we will give will be one of his best young animals, and will be highly bred, of good quality and fit for service when sent out. For particulars of this herd see August number of the FARMER'S ADVOCATE.

Shropshire Ram and Ewe Lamb--Value $40



For 80 New Names, accompanied with $80, we will give a first-class **pure-bred Shropshire Ram and Ewe Lamb,** bred by

MESSRS. JOHN MILLER & SONS, BROUGHAM, ONT.,

the extensive Breeders and Importers of

CLYDESDALES, SHORTHORNS, SHROPSHIRES.

For many years Mr. Miller, sr., has been one of the most famous breeders in America.

Shropshire Ram Lamb--Value $25

For 50 New Names, accompanied with $50, we will give a good **pure-bred Shropshire Ram Lamb** from the famous flock of

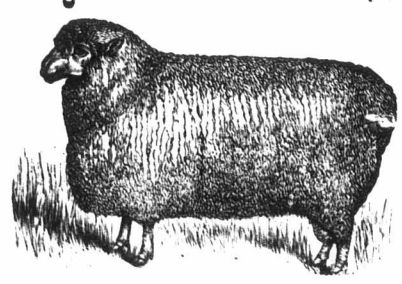
John Dryden, M.P.P., Brooklin, Ont

Importer and Breeder of

Cruickshank Shorthorns, Clydesdales, Shropshire Sheep

and **Black Minorca Fowls.** Show animals always on hand. See May ADVOCATE, page 138 for description of this herd.

Yearling Cotswold Ram---Value $40



For 80 New Names, accompanied with $80, we will give a show **Yearling Cotswold Ram,** or a **first-class pair of Lambs** as the winner may wish, from the well known Cotswold flock, the property of

JOSEPH WARD, MARSH HILL P. O., ONT.,

Breeder and Importer of first-class

SHORTHORNS, COTSWOLDS, SHROPSHIRES

For many years Mr. Ward's flock has been one of the best in Ontario.

Cotswold Ram Lamb---Value $15.

For 30 New Names, accompanied with $30, we will give a good **pure-bred Cotswold Ram Lamb,** bred by

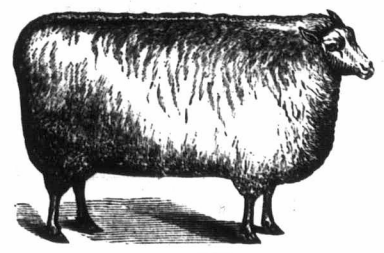
David Birrell, Greenwood, Ont.,

Breeder and Importer of

CLYDESDALES, SHORTHORNS, COTSWOLDS

For description of herd and stud see June number of the FARMER'S ADVOCATE, page 167.

Leicester Ram Lamb---Value $15.



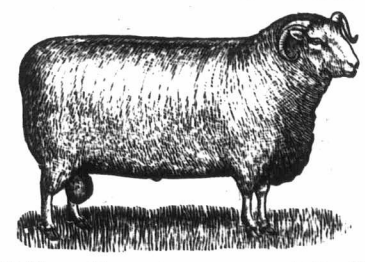
For 30 New Names, accompanied with $30, we will give a first-class **pure-bred Leicester Ram Lamb,** descended from imported stock; bred by

ALEXANDER JEFFREY, WHITBY, ONTARIO.,

—BREEDER OF—

Clydesdales, Shetlands, Shorthorns and Leicester Sheep.

Dorset Horned Ram Lamb---Value $30.



For 60 New Names, accompanied with $60, we will give a **pure-bred Dorset Horned Ram Lamb,** bred by

Capt. Wm. Rolph, Markham, Ont.,

BREEDER AND IMPORTER OF

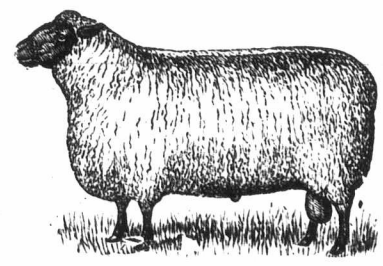
JERSEYS

OF THE MOST NOTED FAMILIES; also breeder of

Clydesdales, Shetlands and Dorset Horned Sheep.

For description of his herd see July number of the ADVOCATE, page 202.

Hampshire Ram Lamb--Value $30.



For 60 New Names, accompanied with $60 we will give a **pure Hampshire Ram Lamb** of good quality, bred by

MR. JOHN ADAMS, PORT PERRY, ONT,

—BREEDER OF—

Shorthorns, Clydesdales, Shropshire & Hampshire Sheep

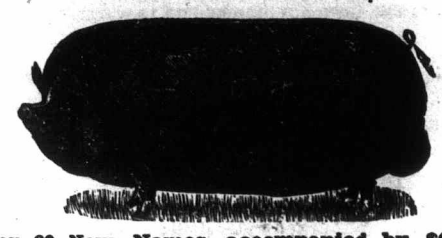
and BERKSHIRE SWINE.

See sketch of Ambleside Farm in July number, page 202.

Black Minorcas---Value $7.

For 10 New Subscribers we will give a pair of Black Minorcas, bred by Mr. John Dryden, M. P. P.

Berkshire Boar--Value $30.



For 60 New Names, accompanied by $60, we will give a **Berkshire Boar,** fit for service, bred by

J. G. SNELL & BRO., EDMONTON, ONT.

They have for sale a good lot of young pigs from two to three months old by the prize-winning boars

RARE SOVEREIGN (490),
LORD DERBY (486),
BARON VON BISMARCK (426),

and out of first-class recorded sows. Prices right. In the last six years their Berkshires have won three-fourths of the first prizes offered at the leading shows in Ontario.

BERKSHIRE SOW--VALUE $30

six months old, or a **pair of Berkshire Pigs,** eight weeks old, same value, presented by

J. C. SNELL, EDMONTON, ONT.,

Importer and Breeder of

Shorthorns, Cotswolds and Berkshires

whose motto is "A good beast with a good pedigree." Mr. Snell ships stock to order and guarantees satisfaction. See August number of the ADVOCATE for a description of Willow Lodge.

Pair of Pure Berkshire Pigs--Value $40.

For 80 New Names, accompanied by $80, we will give a **pair of pure Berkshire Pigs** bred by

WM. LINTON,

AURORA, ONT.

BREEDER AND IMPORTER OF HIGH-CLASS

Shorthorns, Berkshires and Cotswolds.

See illustration of bull and history of his herd in August number.

POULTRY.

For 10 New Names we will give a pair, and for 6 New Names one Cock, of any of the following varieties:

Light Brahmas, Dark Brahmas, Langshans, W. F. B. Spanish, Colored Dorkings, Golden Sebright Bantams, Houdans, Rowen Ducks, Pekin Ducks. Valued at $7 per pair.

For 20 New Names, we will give a pair, and for 12 New Names, one Cock.

Mammoth Bronze Turkeys---Value $9.

ALL BRED BY

WM. HODSON, BROOKLIN, ONT.,

for twenty years a successful breeder of the popular varieties of land and water fowls. Send to him for prize and price lists.

White Fantail Pigeons--Value $7.

For 12 New Subscribers,

we will send to any boy or girl a **beautiful pair of** White Fantail Pigeons **directly descended from Mr.** Hodson's pair which took **the Silver Medal at the** American Centennial of 1876.

The Annual Meeting of this popular and prosperous Company was held at its Head Office, Waterloo, Ont., on Wednesday, May 30th, 1888. The attendance was large and representative, embracing a number of prominent business and professional men from a distance, with the usual quota of the Company's General Agents, and leading men of the town.

The President, I. E. Bowman, Esq., M. P., having taken the chair, the Secretary, W. H. Riddell, Esq., read the notice calling the meeting. The minutes of the previous Annual Meeting were on motion taken as read. The President then read the

DIRECTORS' REPORT.

Your Directors in presenting to you their eighteenth annual report, being for the year ending on the 31st December, 1887, have much pleasure in stating that the business of our Company has again been highly satisfactory,

The number of Policies issued, the amount of assurance granted, the income from premiums and interest, are all in excess of any previous year, and the assets held in reserve for the security of policy holders are proportionately increased.

The following tabulated statement shows that the steady progress made by the ONTARIO MUTUAL from year to year since its organization is still fully maintained:

	1885	1886	1887
No. of policies issued	1,355	1,917	2,181
Amt. of policies issued	$1,867,950.00	$2,565,750.00	$2,716,041.00
No. of policies in force	6,381	7,488	8,605
Amt. of policies in force	$8,259,361.71	$9,774,543.38	$11,081,090.38
Total cash income	273,446.85	319,273.98	356,104.80
Total assets	753,661.87	939,489.73	1,089,448.27
Reserve held	695,601.36	802,167.24	1,004,505.64
Death claims paid	76,836.00	54,250.00	60,156.00
Matured endowments paid	1,000.00	3,000.00	3,150.00

After the completion of the Auditors' statement the Executive Committee carefully examined and passed in detail the several securities specified in the general statement of assets and liabilities to the 31st December last and found the same correct, and also verified the balance of cash.

Our death rate, although somewhat in excess of the unusually low mortality of 1886, is yet much below the expectation, and our ratio of expense to income has again been reduced.

We regret to have to report the death of one of our Directors, I. B. McQueston, Esq., M. A., late of Hamilton, whose place has been filled by the appointment of Francis C. Bruce, Esq., of the firm of Messrs. John A. Bruce & Co., of the same place.

The detailed statements prepared and duly certified to by your Auditors, is herewith submitted for your examination. You will be called on to elect four Directors in the place of Robt. Melvin, Robt. Baird, Jas. Hope and C. M. Taylor, whose term of office has expired, but who are eligible for re-election.

On behalf of the Board,

I. E. BOWMAN, President.

Having read the Auditors' report, the chairman referred to the thorough checking and examination which had been made by the Executive Committee of the Board of all the securities held by the Company and the verification of the cash on hand and in the Banks at the close of the financial year, and he was pleased to be in a position to state that the various amounts invested in policy loans, in debentures and first mortgages were found by them to be correctly set forth in the Company's published statements. He pointed out that the agency staff was perhaps never in a more efficient state than at the present time, as was shown by the fact that the issue of new policies during the first five months of 1888 was considerably in excess of the same period of last year. He showed that though this Company issued a larger number of policies for 1887 than any Company doing business in Canada, the expenses in proportion to new business were less than those of any of the competing Companies, and while he gave the figures for the information of the members present, and which were taken from official reports, he deprecated the practice too common of late with many Companies, of making unfair, unjust and invidious comparisons with rival institutions and publishing the same through the press in their annual reports. He thought each Company should stand on its own merits without an attempt to disparage the standing of its neighbors. He had much pleasure in moving the adoption of the various reports.

Several members spoke in support of the motion, congratulating the Directors, Officers and Agents on the continued prosperity, the high financial standing, and growing popularity of the Company, which they agreed in believing was destined to be at no very distant date the leading Life Assurance Company of Canada—a position it was pre-eminently fitted to occupy owing to its careful and energetic management, its principles of mutuality and equity, its payment of death losses immediately on the completion of the claim papers, without any abatement or discount—a practice which THE ONTARIO MUTUAL LIFE was the first to introduce in Canada, but the credit for which some of its rivals were now trying to rob it. This Company has no interests to serve apart from those of its members, who get their assurance at net cost. It was maintained that too much could not be said in favor of the liberal and equitable cash surrender and paid-up values guaranteed in plain figures under the Company's seal on each policy, thus enabling members to know with certainty the value of their policies should unfortunate circumstances, which often occur, necessitate their relinquishment. Its policies, old and new, were now without conditions in regard to travel, residence and occupation, and after the lapse of two years indisputable on any grounds whatever.

Among the speakers were the Rev. Messrs. Morrow and Carson, and Messrs. Frank Turner, C. E., Wm. Bell, J. B. Hughes, Geo. Lang, Charles Packert, S. Burrows, E. M. Sipprell, Wm. Hendry, the Company's Manager, and others. The retiring Directors having been re-elected, the Auditors re-appointed by vote of the meeting, and the usual votes of thanks passed, this most successful and influential meeting was brought to a close.

After the adjournment the Directors met and re-elected I. E. Bowman, Esq., M. P., President, and C. M. Taylor, Esq., Vice-President, for the ensuing year.

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Buffalo International Fair Association.

The Premium List of the International Fair to be held at Buffalo, Sept. 4th to 14th, has been received and is one of the most liberal ever issued, the cash premiums being $100,000.00. Those of our readers who are interested in Live Stock, Machinery, General Agriculture, Ladies' Fancy Work or Pets, should send to C. W. Robinson, Sec'y International Fair, Buffalo, N. Y., for a premium list, which will be sent free.

We give below as complete a synopsis of the premiums as our space will admit.

HORSE DEPARTMENT.

Stallion and four of his get	$1,000 00
Stallion, four years old and over	500 00
Stallion, three years old	300 00
Stallion, two years old	200 00
Stallion, one year old	100 00
Mare, four years old and over	300 00
Mare, three years old	200 00
Filly, two years old	100 00
Filly, one year old	50 00

The above premiums are given for most of the breeds of horses. The amounts are divided into from three to five premiums.

CATTLE DEPARTMENT.

	1st prize.	2nd prize.	3rd prize.	4th prize.
Aged herd	$200	$100		
Young herd	100	75	$50	$25
Bull and produce	200	100		
Bull, three years old and over	60	30		
Bull, two years old	40	20		
Bull, one year old	25	10		
Bull calf	15	5		
Cow, three years old and over	60	30		
Heifer, two years old	40	20		
Heifer, one year old	25	10		
Heifer calf	15	5		

The above premiums are given on all breeds of cattle, and in addition the society gives for test prizes among dairy cows, the following:

Cow producing largest quantity of butter during three consecutive days of the exhibition:—1st, $300; 2nd, $150; 3rd, $50.

Cow producing largest quantity of milk during three consecutive days of the exhibition:—1st, $180; 2nd, $90; 3rd, $30.

SHEEP DEPARTMENT.

	1st prize.	2nd prize.	3rd prize
Ram, three years old and over	$30	$15	$5
Ram, two years old	25	10	5
Ram, one year old	20	10	5
Ram lamb	10	5	3
Pen of three ewes, three years old and over	30	15	5
Pen of three ewes, two years old	20	10	5
Pen of three ewes, one year old	15	10	5
Pen of three ewe lambs	10	5	3

These amounts and classes are devoted to all the breeds, including Merinos, for fineness of wool, for length of staple, and weight of fleece; in addition to the above amounts there are very liberal sweepstake premiums on sheep.

SWINE DEPARTMENT.

	1st prize.	2nd prize.	3rd prize
Boar and four of his get, all over six months old	$40	$20	
Boar, one year old and over	20	10	$5
Boar, under one year	15	8	4
Sow, two years old and over	20	10	5
Sow, one year old	15	8	4
Sow, under one year	10	5	2

These are amounts which (in addition to a few sweepstakes,) the society offers on each breed of swine.

POULTRY DEPARTMENT.

The society offers premiums on each variety of fowls named in the American Standard of Excellence as follows:

	1st	2nd
Breeding Pen	$10	$5
Cock	3	1
Hen	3	1
Cockerel	3	1
Pullet	3	1

Pigeons, and all other ornamental fowls receive especial attention.

DAIRY PRODUCTS.

There are $1,400.00 devoted to butter and cheese prizes, and this will furnish a rich harvest for both creameries and private butter makers.

There will be every facility for farm machinery exhibits. Liberal premiums are offered for all classes of farm produce, Fruit, Ladies' Fancy Work, Painting and Drawing, Stuffed Birds Coins, Relics, &c., &c.

Notices.

From Mr. McBroom, London, we have received the report of the first annual meeting of the Association of Fairs and Exhibitions. It is got up in very nice form and should be in the hands of all who are interested in fairs.

We are in receipt of the first number of the Dominion Illustrated, by Desbarats & Son, of Montreal. The initial copy is handsome, and the illustrations are the work of some of Canada's leading artists. The articles are appropriate.

We have received from the Department of Agriculture, Washington, U.S., a treatise on the grape, dealing particularly with the downy, mildew and the black-rot. It also has a chapter on asparagus, concerning diseases and remedies.

A very complete little work entitled "Quince Culture," by W. W. Meech, published by Orange Judd Co., has lately reached our office. It treats on all the various stages in the cultivation and management of the quince from its grafting and planting in the nursery row to the marketing of the fruit, not forgetting the insect and parasitic plants which attack it.

We have received from Messrs. O. Judd Co., of New York, a valuable work entitled "The Dairy man's Manual," by Henry Stewart, Esq., a practical treatise on the dairy, including the selection of the farm, the cultivation of the crops, the selection of breeding cows, management of milk and treatment of diseases incident to the dairy. Price of above book is $2. It may be had at this office or from the publishers.

GRAND EXCURSIONS TO CALIFORNIA.—The Burlington Route is the official route for the teachers bound for the National Educational Meeting at San Francisco. Join the splendid official excursion parties from New York, Pennsylvania, Brooklyn, New England, Ohio, Michigan and Indiana, leaving Chicago July 3rd, 5th, 8th, 9th and 10th. Magnificent trains, free chair cars, Pullman and tourist sleepers, etc. The public entitled to one fare for this occasion. For further information write E. J. Swords, 317 Broadway, New York City; H. D. Badgley, 306 Washington St., Boston, Mass., or address P. S. EUSTIS, G. P. and T. A., C., B. & Q. R. R., Chicago, Illinois. advt, 271-a

Dates of Principal Fairs to be held in Canada and United States.

NAME.	PLACE TO BE HELD.	DATES.	SECRETARY.
43rd Provincial Exhibition of Agriculture and Arts Association of Ontario	Kingston	Sept. 10th to 15th	Henry Wade.
Eastern Townships	Sherbrooke, Que	" 4th to 6th	E. Winn Farwell.
Industrial Exhibition	Toronto	" 10th to 22nd	H. J. Hill.
Southern Fair	Brantford	" 11th to 13th	R. M. Wilison.
Guelph Central	Guelph	" 12th to 14th	R. Mackenzie.
Southern Counties	St. Thomas	" 17th to 20th	John A. Kains,
Western Fair	London	" 20th to 25th	Geo. McBroom.
Great Central Fair	Hamilton	" 24th to 28th	Jonathan Davis.
Bay of Quinte	Belleville	" 25th to 28th	Wm. Smeaton.
Great Northern	Collingwood	" 25th to 28th	T. J. Crawford.
North Lanark	Almonte	" 25th to 27th	Wm. P. McEwen.
Ontario Central	Port Perry	" 25th to 28th	H. Gordon.
Quebec Provincial			S. C. Stevenson.
South Dorchester	Belmont	Oct. 2nd	Wm. Black.
County of Prince Edward	Picton	" 2nd to 3rd	Thos. Bog.
Peninsular Fair	Chatham	" 2nd to 5th	John Tissiman.
Provincial Exhibition	Charlottetown, P.E.I	" 3rd to 4th	A. McNeill.
Buffalo International	Buffalo, N. Y.	Sept. 4th to 14th	C. W. Robinson.
Tri-State	Toledo, Ohio	Aug. 27th to 31st	John Farley.
Ohio Centennial	Columbus, Ohio	Sept. 4th to Oct. 19th	L. N. Bonham.
Michigan State	Jackson, Mich.	" 10th to 14th	J. C. Sterling.
Minnesota State	Hamline, Minn.	" 10th to 15th	H. E. Hoard.
Western Michigan	Grand Rapids, Mich.	" 17th to 21st	James Cox.
Indiana State	Indianapolis, Ind.	" 17th to 23rd	Alex. Heron.
Illinois State	Olney, Ill.	" 24th to 28th	Chas. F. Mills.
St. Louis	St. Louis, Mo.	Oct. 1st to 6th	Arthur Uhl.

STOCK NOTES.

Under the illustration of Mr. David Birrell's famous horse Glenluce, in our last issue, his address was given Glenwood, Ont., which should have been Greenwood.

Two cars loaded with Shorthorn bulls and heifers were shipped from London, Ont, to Idaho, U. S., by Geary Bros.

Mr. John Isaac, of Markham, Ont., reports his Shorthorns and Clydesdales as doing well; he has a lot of fine young stock. His sales for the past year have been very encouraging.

We recently had the pleasure of looking over the Holstein herd of Messrs. Smith Bros., Churchville, Ont., and found them an extra good lot. A review of the herd will be given in a future number.

Mr. John Dryden, M. P. P., of Brooklin, Ont., and Mr. John Miller, of Brougham, Ont., have recently sailed from New York to Great Britain. They will import Clydesdales, Shorthorns and Shropshires this season. These gentlemen always bring extra fine animals.

Messrs. Jeffrey Bros., of Whitby, Ont., received last week from Mr. Ferguson, Glasgow, a fine 2-year-old Clydesdale stallion, Merriment; sire Belted Knight, a noted horse in Scotland. This is the most stylish colt, they say, they have ever handled—very smooth and even. Other stock doing fine.

Some local papers had raised the cry that our Province harbored within its borders animals affected with the dreadful disease of *contagious pleuro-pneumonia*. The veterinarians, sent by the Local and Dominion Governments, have, however, found that the disease is not the one which some were lead to suppose it was, but one of a non-contagious character.

Messrs. Alex. Marsh & Son, Richmond Hill, Ontario, have recently bought the very fine young Cleveland Bay Stallion, Prince Alexander (236), bred by Wm. Pearson, Darlington, Eng., imported Sept., 1887. This is one of the best bred Clevelands now in America; he has already been successful in the show rings, and unless he happens with a misfortune he will be a prize winner in the future.

The Toronto Industrial and the Provincial Exhibition prize lists have been received. At each the prizes are liberal, especially to horses, and the classes plentifully divided. The general purpose horse has two classes in the Toronto list and one in the Provincial. If they are Cleveland Bays, or heavy Coach horses, why not give them a class as such? Among the farmers the general purpose or agricultural horse is generally one too light to be called a Clydesdale or Shire, and too heavy to be called a driver. What benefits are we to derive from stallions of this class? Would it not be better to do away with these classes; dividing the money among the better sorts? Why give a prize to a grade stallion sooner than to a grade bull? Why leave a valuable class like the Cleveland Bay out altogether? On horses and cattle Toronto offers the best prizes; but on sheep, pigs and poultry they stand second to the Provincial.

Mathewson Bros., of Bradley, Clark Co., Dak., U. S., who have previously bought a lot of good stock in Ontario, bought the last week of June last 58 head of pure-bred Shropshire sheep from that veteran stockman, Mr. H. H. Spencer, of Brooklin, Ont. The lot comprised a number of very choice breeding ewes, nearly all imported, and were selected by Mr. Spencer from some of the best English flocks. The lambs were an unusually good, even lot. Among the rams bought with this lot, was the sire of the lambs, which is, perhaps, the best Shropshire stock ram in Ontario to-day; also the imported yearling, Octo, the prize winner in Ontario last year, and other good ones. Mr. Dryden is also buying Messrs. Mathewson Bros. a pen of five show ewes from England. They are also closing with Mr. Campbell of Woodville, Ont., for a few good Shropshires. They have bought two Clydesdale stallions, both are good and nicely bred, being descended from very fine families.

Send in your stock notes whether bought, sold or imported.