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# FARMER'S ADVOCATE

PERSEVERE SUCCEED

AND HOME MAGAZINE

VOL. XIX.

LONDON, ONT., FEBRUARY, 1884.

Whole No. 218.

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WANTED—AN ASSISTANT EDITOR—One having thorough practical knowledge of Agriculture. Address FARMER'S ADVOCATE, London, Ont.

### Our Monthly Prize Essay.

A prize of \$5.00 will be given for the best essay on "How Many Successive Crops of Green Fodder can be Raised in one Season." The essay must comprise the most suitable crops for both light and heavy soils, yield to be expected, and method of cultivating. The time for handing in this essay has been extended to the 15th February.

A prize of \$5.00 will be given for the best essay on the "Cheapest and Best Method of Fencing, and how can the cost of such be lessened." The essay to be accompanied by a rough sketch of the fence recommended. The time for sending in this essay has also been extended to the 15th March.

A prize of \$5.00 will be given for the best essay on *The Causes of the Recent Failure of the Clover Seed Crop*, in different parts of Canada, and the best suggestions for their remedy. The essays must be as brief as possible as to the causes, but must go thoroughly into the remedies. The essay must be sent in before the 15th April next.

### The Fruit Growers' Association of Ontario

held their annual meeting at Woodstock on Wednesday and Thursday, the 30th and 31st January. The meeting was a good one; much valuable information was disseminated and an enjoyable time passed. Mr. W. Saunders, the President, makes an excellent chairman and is very popular. The citizens of Woodstock gave the members a supper. We were present on Thursday afternoon, when several addresses were read, out of which much valuable information and useful hints were to be obtained, but, as at most of these meetings, much that has been said again and again was here repeated. This may often do good, but for the future well-being of this Society we would suggest that it would tend to greater benefits were three-fourths of some of the long addresses left out and the real useful points only allowed to occupy the time. Some of the addresses were so tedious that half the attendance left the hall. Perhaps the most valuable points taken during the afternoon were contained in a paper read by Mr. Smith, of Grimsby, entitled, "Mistakes," from which we glean the following useful hints:

Mr. Smith said it was a mistake to be present in this hall and think that mice were not destroying their fruit trees; a mistake to plant trees with a post-hole borer; a mistake to plant

trees during any particular quarter of the moon; that trees should be planted in the earth; a mistake to turn young trees out to grass as soon as they were out of the nursery; a mistake to think that some tree peddlers did not intentionally label trees incorrectly to enable them to sell, regardless of variety; a mistake to think every tree peddler dishonest; and a mistake to put all the small berries at the bottom of the basket—the large ones on the top had a crushing effect, particularly on your conscience; we may, add that it is a mistake that the farmers are not better protected against humbugs than they are. We hoped to give you more useful information from this gathering, but time and space prevents us, as our paper must go to press and is already full. The summer meeting will be held in Berlin, Ont.

### Nibs by the Way.

Repairing tools is now in order.  
Mixed husbandry is the safest.  
Beware of sheep-killing canines.  
Now secure plenty of fuel and ice.  
Soon you may say "Come Boys."  
System and order pay on the farm.  
Did you begin the new year aright?  
Not too early to plan for the garden.  
Use dry muck plentifully in stables.  
Are you regular in foddering stock.  
Secure good seed for spring planting.  
Wild mint will drive away rats, etc.  
Pennyroyal will make roaches leave.  
A change of seed is often beneficial.  
Is that map of your farm completed?  
Get good implements for spring work?  
Get ready for the maple sugar season.  
Read up on your specialty in farming.  
Industry and economy leap to success.  
Sorghum culture is increasing rapidly.  
Remember damp cellars are unhealthy.  
Good buildings indicate thrifty farmers.  
Draughts in poultry houses cause roup.  
Pluck decayed leaves from house plants.  
Do heavy teaming while the snow lasts.  
The wise farmer secures good help early.  
Send for catalogues of seeds, plants, etc.  
Morning milk is richer than the evening.  
Read the advertisements of seeds, stock, etc.  
The Jersey is styled the "gentleman's cow."

We have still a supply of our Illustrated Premium List. Send at once for a copy and win some of our useful and pleasing premiums before the 15th March.

### Editorial.

#### Barn-yard Impurities.

There is a sad neglect of barn-yards in this country, and in more senses than one. For five months in the year the midding is the nucleus of important interests for the future welfare of the farm. We refer to manure. Then for five months the barnyard is the radius of farm operations, both for men and women. Besides, the importance of the barn-yard being the laboratory in which the year's supply of plant food is made, it is also the arena of noxious gases and fluids. How many farmers have proper receptacles for their liquid manure and the washings from the dung-pile? But we forget; a large number of farmers have such in the shape of the wells in their barn-yards. Instead of yards being properly drained, and having tanks for the reception of the liquids, these, through the natural laws of gravity, find their way to the lowest point, and this is the barn-yard well. It can hardly be stated that fluids always have a tendency to go down, infiltrate or permeate soils, no matter how compact. There is a continual circulation of fluids in all the upper strata of earth, similar to the circulation of the blood in the animal economy. That is, there is a natural drainage going on all the time through the interstices of the soil. Now, let this be clearly understood—that fluids are circulating all the time through the ground. But at this time of the year near the surface, when the ground is frozen, the circulation is impeded by the action of frost, and the fluids become solids. Only at depths lower than the frost-line is there any circulation at present; but as soon as spring opens, and the washing process commences and the soil absorbs the liquids, they at once find their way to the surrounding wells. There is a two-fold idea involved in this barn-yard question; first, by not having proper drainage and tanks for the liquid manure. There is a large leakage of the essential elements of plant food—the liquid manure; and it has been shown in this paper that the ratio of liquid and solid manure is as nine to seven, or that weight for weight, seven lbs. of liquid excrement contain as much plant nutriment as nine lbs. of solid. But again, another phase of the question about barn-yards is, besides having tanks and drainage for the liquid it would pay to have proper shelter for the manure, so that the action of rain and frost would not deteriorate the quality and thus lose by continual washings. We have no doubt but separate and properly-constructed apartments for the solid excrement would save as much to the farmer as the waste of the liquids. For example, take the ordinary way of making manure in this country, and by exposure to weather, by washing and the evaporation of gases, especially ammonia, the waste is extraordinary, and it is not to be wondered at that farm-yard dung is often found to be so insufficient in supplying the required amount of plant food; for by washing and exhalation the best of it is gone.

However, there is another view of properly cared for barn-yards, and that is, the lost liquid manure becomes a source of pollution to wells—thus killing both ways. In its proper place it would yield a supply of plant food; in

wells and streams it only tends, by being drunk by stock, to produce the most disastrous results. Cattle that drink impure water are affected in various ways. In milch cows drinking from a polluted barn-yard well, the milk will be impure, for the water immediately enters into the circulatory system and imparts its impurities to the milk, and this again to the butter and cheese. A great many farmers' wives often wonder why their butter spoils, and their milk is not right and won't keep. The cause may be looked for in the barn-yard well, which are often nothing more than what a Yorkshire man calls "meg"—rotten water. The effect of drinking this barn-yard water does not extend only to affecting the circulatory system of the milch cows, but these poisonous and polluting elements of decayed organic matter destroy the general health of an animal, and oftentimes produce disease and a general disturbance of the functions of life. And we venture to say that bad water, accompanied with improper food, has more to do with stock farming in this country than most of our breeders are aware of. If we are to believe the advances of scientific enquiry, nearly all diseases emanate from spores, or living organisms, and these are developed in various forms in the decay of animal and vegetable matter. Impure barn-yard water carries a deadly poison to both man and beast. Then, for the sake of economy, in saving manure in a liquid and solid state, and for the health of stock, pay particular attention to barn-yards. Have them conveniently laid out; save your liquid manure for the land, and don't allow it to be drunk by your stock, instead of fertilizing your land.

[The above subject is an important one. It means LIFE OR DEATH, PROFIT OR LOSS. The use of impure water destroys not only the health of your stock, but the milk produced from the use of bad water has been often known to cause sickness to the family that has often terminated in death. How many have you known to die from malarial and typhoid fevers? Impure water and impure gases are the cause of these diseases. Examine and see if it is possible for drainage from outbuildings of any kind to bring death into your house. If so, far better to expend a sum of money in prevention than paying a doctor's and undertaker's bill.]

#### More Underdraining Needed.

To the serious loss of thousands in Ontario, the past season has proved that draining is our great need at present, and that many farmers lost more in this single season by want of drainage than would have paid for doing the work, and, in some cases, perhaps as much as would buy the tile as well. But the great drawback in our part of the Province is that tiles cannot be had in any considerable quantity. The few yards that are in use can turn out but a limited quantity, so that those who wish to get some must buy them in advance, be there when the kiln is opened, and perhaps draw lots to see whether he shall have a few hundred or not, and handle them before they get cool. Would it not be well to do as a farmer in the New England States did some years ago—send to the old country for a dozen

tile-makers, and try to supply the demand, which must increase a hundred-fold, as farmers must drain, and are more than convinced that lumber is almost useless as material for permanent drains. The time has passed when old-fashioned farming will do for Ontario. The rich prairies of the Northwest are now preparing to pour their elevators full of grain into our markets, that will swamp our old-time methods and force us to quit growing grain, unless we double the yield with the same land. The time of eight or ten bushels of wheat to the acre has been blotted off the catalogue of successful farm operations. Deep and thorough underdraining is our only refuge, to do which we must have plenty of tile, well made and at value. Our neighbors across the lakes are now moving in the same direction, as will be seen from the following figures in the Country Gentleman of the 3rd inst.: In Illinois they have 500 tile-makers; in 1876 they laid 1,000 miles of tile drains; in 1879, 6,000 miles, and in 1882 20,000 miles were laid, and they estimate that to thoroughly tile one-half of the land in the State, or 16,000,000 acres, it would take those 500 makers of tile 100 years to make tile enough. But the demand and the increase of manufacture is so great that it is computed that before ten years 1,500 yards will be in operation. There is a bright example for our own people, and if, instead of bundling out hundreds of poor fishermen and paupers and their families into our Province, emigration agents would bring over two or three hundred tile-makers, our emigration funds would be spent to some purpose; while, as it is, it is used to add a comparatively useless burden to our country, and discomfort to those who are taken out of their true element and thrown into unfamiliar circumstances to which they are strangers.

A few hints are here in season: Draining, and thorough draining, is our next duty, and we must not aim at doing the work on the surface, nor all at once; nor must we begin at the upper end. This, if well begun, will be a permanent improvement; but to give it the true value we must begin at a good outlet. Lay down deep and good main drains, with proper outlet, taking care to guard the outlet by a grating, so that frogs, or other amphibious animals, may not enter to cause after trouble. After a main has been established the feeders, or laterals, can be laid with profit, provided always that care be taken to have each finished from the head to the main before a flush of water comes to carry sediment into the main. We must aim at laying as deep as circumstances will permit, but not less than three to four feet deep in any case.

It is to be hoped that our Provincial Legislature will so amend our drainage law as to give farmers the management of this business by making fence-viewers the arbitrators, with power to call, survey and to take levels, if necessary.

Do our farmers realize that if they tell us of their mistakes it may help more than the story of their achievements.

The real name of the mysterious "tramp" who does a good deal of barn-burning is Spontaneous Combustion.

**Agricultural Exhibitions.**

We all believe they have been beneficial to farmers, both as an incentive to improvement and also as a holiday and a day of amusement. The rapid march of progress and the increase of wealth have given more leisure to farmers and a greater desire for recreation. It is a natural desire, and it is always more agreeable if we can combine business with pleasure; but there exists a danger in the combination, that is, that as the pleasures are more attractive and cheering to the young in particular, to what extent should they be amalgamated with our agricultural exhibitions.

We look up to the Royal Agricultural Society of England as the best conducted agricultural exhibition we have ever seen. There the masses are only interested in the agricultural products of the country. No horse racing or any other outside attractions are to be seen, and the prizes awarded there have a world-wide reputation as being genuine and merited. In every department great interest is taken by exhibitors and spectators sufficiently to ensure a monstrous gathering wherever it may be held. Despite this as a pattern, we almost despair seeing our agricultural exhibitions as perfect as we would wish, and as the outside attractions are so looked upon by the majority of the people, it would be but folly for us to attempt to set up a cast iron standard in opposition to the public feeling. We must take things as they are, and try to make the best of them.

We deemed it our duty to be present at the election of officers of the East Middlesex Agricultural Society, which took place in the Court House, in the City of London, on Wednesday, January 16th; also of the election of officers of the London Horticultural Society, held in the City Hall on the evening of the same day. From these two boards the officers of the Western Fair will be elected. This Fair is one of the largest and most important independent agricultural exhibitions in Canada. The attendance at both these meetings was unusually large. The county meeting was composed of a fine lot of the most enterprising farmers in the riding. The election went off most harmoniously and in good order, and a good working body was elected. But the fun was in the evening, at the City Hall, where the members of the Horticultural Society were collected. It was known that some of the members had not been acting satisfactorily for years past, that they had formed a ring, and by various means had always been able to get votes sufficient to have themselves re-elected. Some of these members were looked upon as leeches and drones to the association. Some of the city merchants adopted a plan to turn them out and elect fresh men. Money was plentiful, and plenty of people that never took any interest in horticulture before were suddenly strongly interested; the consequence was that the hall was filled with horticulturists. The old members had their supporters there in unusual numbers, and the scenes that ensued were most amusing. Red tickets had been printed but not delivered; these were to be held up by the voters. Ballot tickets had also been prepared. There was a strong contest as to which should be used. The red ticket system was adopted. The hissing, hooting and disorder, as the different speakers desired to make remarks, was unprecedented at any similar

meeting. One would have almost thought the people crazy. Some sharp and cutting remarks were made. One speaker said that he was not there with a pauper's ticket in his pocket, as many of them were. The result was that an aider of the new party stood on the platform and raised a red ticket as a signal, and the hall bristled with red. Immediately a remarkable coincidence occurred, which should not be overlooked, namely, that one of the officers had been nominated for an office in the County Board, and there the blue tickets were held up *en masse* against him (as blue tickets were used at the County Board), and only two blue tickets were held up for him. Yet at the city meeting the hall bristled with red tickets for him. There exists a fear among some of the old steady, practical farmers, that attempts are to be made by the citizens to wrest the agricultural grounds and the fair out of their hands, and to take control of the management of the exhibitions themselves, and that the farmers are to be subservient to them.

It is claimed by some that the cities can offer larger prizes, and that will draw the farmers; and citizens, being business men, can conduct the exhibition in a better manner, also they can and will put more money into it, and make it more attractive. There is much room for improvement. All will admit that the exhibition has been a grand success in the past, and it is popular with the farmers and visitors; and as a purely agricultural exhibition it stands unsurpassed in Canada—perhaps on this continent. The business men in the city may have done a good service in rejecting some members that may not have acted as they should have done; now they have a responsibility that, any one must now see, rests on their shoulders. We trust and believe that the readers of this who have taken a live interest in the Western Fair will not be overthrown by those who take no interest or delight in agriculture, or those who never have once been to an exhibition outside of the city, or read anything in regard to their requirements or management.

**On the Wing.**

On the 22nd we took a trip to Mr. Hugh Love's farm, Kippen, Huron Co. The attendance was very large. His reputation as a reliable stock breeder and importer being unsurpassed in this respect in this county. This drew a large concourse of the best farmers in the country, many coming from a considerable distance. The sale was well conducted, and much better prices realized than we have seen at any previous sales for months past, despite the failure of the wheat crop last season.

**THE POULTRY EXHIBITION.**

On the 23rd we paid a visit to the poultry exhibition, Toronto. The number of birds exhibited was not as large as previous years, but the quality was claimed to be better than at any previous occasion. One of our subscribers in British Columbia had written to us, being desirous of procuring bronze turkey eggs, but the only exhibitor of this class would not dispose of any eggs. There was no particular new feature in any department. We made enquiries for the Scotch Greys, as we have heard them highly spoken of. There was none on

exhibition. The London poultry men carried off the lion's share of prizes. Mr. A. Bogue took 66 prizes out of 70 entries. He was the largest exhibitor. Mr. O'Neil took 47 prizes out of 48 entries. Indeed, it was hard to find a pen without a prize ticket on. The show was a financial success; the association being able to pay off a debt of \$300, standing against it. The exhibition will be held at Guelph next year.

**THE MODEL FARM.**

On leaving the exhibition we went to the Rossin House; here we found numerous members of Parliament spoiling for the fray. Many of the members spoke to us on various subjects; the most vexed question appeared to be with regard to our remarks about the Model Farm. Many considered we were wrong, or had been too severe in our criticism. We replied that we had only done our duty; in fact, were we to censure it, we could do so with more vigor than we had yet done. Mr. Awrey, the member for South Wentworth, desired us to give full explanations. We replied if three members of Parliament requested us to do so we would comply with their request. This gentleman together with Messrs. Jno. Dryden, of South Ontario; McCraney, of Bothwell; Ballantyne, of Perth, desired us to do so. We feel we have undertaken a task too large to be sufficiently explicit in one issue of this journal. To be brief, our opinion is, and has been, first, that the College was commenced for the purpose of giving a place to a political partizan, now dead. The moving of the grounds from Mimico to its present site was also for party purposes, the management having been the apple of the eye of another partizan. The first professor was chosen from the United States for special purposes. It was found necessary through his improper management to give him a heavy bonus to clear the country. The third professor felt so dissatisfied on finding the state of affairs that he jumped into the stream and tried to drown himself. The Rev. F. W. Clarke found it necessary to vacate his position as soon as he got it. Mr. Johnson, like a sagacious rat deserting a sinking ship, abandoned this institution. If you continue to endorse the plans that have been adopted in endeavoring to suppress what we believe to be the truth, and perverting facts, you are setting such a pattern before the eyes of farmers that the moral instruction is of ten times greater injury to the country than any benefit that may be derived from the College. We further believe that this College has, by checking private enterprise, done more injury than good, and that the enormous sums expended in publishing and disseminating such immense quantities of literature to bolster up the institution, to shield its errors, and to make it appear popular, have not been judicious expenditures, and intentionally tending to shut down on private enterprise. Farmers have been led to believe by the experiments at the Model Farm that beef raising will not pay. The best authorities on the dairy interests state that the reported tests of this institution are incorrect. No really valuable deductions that we are aware of have as yet been brought forward from this farm. The experiments are of such a varying, and changing nature that they have served

more to draw the attention of the public than for any benefit to the farmers. The best information is gained from private individuals or from previous works taken from others and palmed off as being from the College, whereas the originators are entitled to the credit. Partisan influence has been a greater object aimed at there than the farmer's interest. The attempts that have been made by recipients of public favors to mislead or to suppress truth should not be tolerated at any educational establishment. But suffice for the present

SOUTH PERTH AGRICULTURAL ASSOCIATION.

On invitation we attended the annual dinner of this Society in St. Mary's on the 29th of January. This is one of the oldest established Agricultural Society dinners in Ontario. The dinner was attended by between 40 and 50, principally the leading agriculturists, with the Mayor and a few of the Council of the town. This, as their usual dinners, has passed off in a most satisfactory manner. Many useful hints were thrown out, and a general fraternization of different parties took place, which always tends to the benefit of all concerned, as the one object was a social meeting and harmonious working of their Society. The directors may well be proud of their continued success in maintaining a good agricultural exhibition building and being free of debt. Different subjects, such as drainage, stock-breeding, crops and the sanitary conditions of stock, etc., were touched upon. The citizens treated upon other subjects, such as public education. The Mayor considered free education should only extend to a good, sound English education, and that parties requiring more should pay for it. These views appeared to be fairly coincided with by the meeting, as some of the farmers stated that when their sons went to the high schools they could scarcely be induced to settle on a farm afterwards. Mr. L. E. Shipley, member of the Board of Agriculture, produced the list of questions propounded by the Board of Agriculture and Arts. One member, a school trustee, considered such questions were not suitable for our general schools, as the teachers knew nothing about the subject. The meeting broke up after 2 o'clock. The farmers here are second to none, having all gravel roads, cleared farms and less waste of land than any other place; free roads and general prosperity prevails, despite the present season's failure of wheat. On our return we met in the cars R. R. Cockburn, of Muskegon, Mich., who is engaged in fruit-growing. He informs us that two years ago he grew 90 tons of grapes on 16 acres of land, and they realize \$300 per acre. Also this year he grew 50 bushels of quinces; these he found one of the most profitable crops—realizing \$4 per bushel. They can be easily raised on stiff land near moisture, and near a house is also an excellent location; using all the slops you can get from the house on them. Salt is also highly necessary for their production. He puts half a peck of salt around each tree. In his orchard several years ago, he drove a ten-penny iron spike into each apple tree a short distance from the ground. These spikes are now grown over. He says that the apple tree requires iron. The sap passing by the iron conveys it to all parts. His trees are healthy and bear well. He informs us that by driving an iron

spike into a crabbed or knotty tree will soon alter the appearance of the tree and the foliage will become healthy.

ASHES,

he claims, is the very best fertilizer we can get. Canadians are doing wrong in shipping their ashes. Large quantities of them are sent to New Jersey; there the farmers pay 30 cents per bushel, besides hauling them, and yet Canadians don't save them, but would prefer selling for five cents a bushel. Leached ashes he found to be the very finest fertilizer for the strawberry. He destroys the thrip rose bug, and nearly all other insects, by using the following recipe:—10 lbs of lime, 4 lbs sulphur, 2 lbs. hardwood ashes, put into a barrel of water; draw off, and syringe the lower part of the leaves; be careful not to have it too strong; after the barrel has been drawn off, it may again be half filled with water. Don't put any of the thick substance on or it will destroy the leafy. We commend our readers to test this, and report to us the results.

TO PROPAGATE CUTTINGS.

Grape vines goose-berries and currants can be most easily raised by making the cuttings with two eyes only. Bury one eye in a potato, and leave the other to grow. Plant in this form the upper bud above ground. This gives the cutting moisture and nourishment, and you will raise a greater percentage by this means than by the ordinary method. Try it and report.

### Special Contributors.

#### English Letter.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, January 1st, 1884.

The winter of 1882-3 being dull, wet, miserable prevented the sowing of much winter wheat, and the year opened with a heavy cloud hanging over the farming interest. Then there came a spring of exceptional promise, and probably never did the British farmer get in his spring grain with brighter promise. But, alas! for the uncertainty of human, and especially farming, interests. July, at the flowering time, was cold, wet and ungenial, and the result is a general deficiency in yield. In some districts, too, the harvesting time was very bad; and a balance on the wrong side again faces the farmer. On the other hand, the yield of green crops, and feeding stuffs generally, was excellent, and the winter so far has been extremely mild and open, causing the minimum demand on stores of food. The prospects of the dairy and grazing farmers were therefore of the brightest; when, alas! came a virulent outbreak of foot and mouth disease, which from August onwards has spread through the length and breadth of the land, and caused incalculable loss to the already long-suffering farmers. In fact, from one cause or another, British agriculture and farming seems always to be catching it. A good season all round is the rare exception, and general misfortune the rule. In glancing over the agricultural papers I still see reports from all quarters of land going out for cultivation, farmers selling off, and landlords seeking feebly to meet the situation by temporary allowances of percentages from the rents. This

means, of course, an increased flow of capital, and of workers to the new and cheap lands of the Dominion, to increased production there, and to yet keener competition here. This all means that English farmers will have to resort yet more and more to the production of quickly perishable articles, such as fruits, vegetables, fresh milk, new-laid eggs, &c., &c., for which there is an ever-growing demand, as the population increases, and the area under cultivation diminishes.

To Canada we must look more and more every year for our breadstuffs, our beef and mutton, and our horseflesh, as well, of course, as a large proportion of our timber. May we hope that those who direct the affairs of old and of young Britain may take a broad and enlightened view of the situation, and by loosening the shackles of commerce between the two, to the utmost possible extent promote the well-being of two communities between which are the closest ties of any which bind in sympathy two peoples, who are, physically, far asunder.

The cattle trade with the Dominion continues on a satisfactory footing, and the same may be said of sheep. A most gratifying feature of both is the steady improvement in quality, showing that the advice so repeatedly and earnestly given in the columns of the FARMER'S ADVOCATE and other journals throughout the Dominion, is bearing fruit. I am sorry, however, to see what gigantic efforts are being made by interested speculators to introduce the breed of Percheron and Norman horses, both in Canada and the States. Repeated tests here have shown that they are in no degree equal in stamina to the best English breeds; and it would be far better for a society or club of breeders to buy one really good animal at double or even treble the price of one which may be strong enough, but will only propagate inferior stock.

The question of ensilage, or the preservation of green fodder for winter use, is now attracting great attention amongst farmers here. Lord Tollemache, and many others, made experiments last summer on a large scale, and they have almost invariably turned out a great success. No doubt a little green food during the long winter of our latitude is a great desideratum, especially in the case of milking-cows; and more with you than with us, where the deprivation from green food is much longer. The great uncertainty of our seasons here, and the risk of getting the hay in good condition, is another argument in favor of ensilage with us, which does not apply to the like extent with you, but for many reasons those farmers who have facilities should try it. An air and water-tight pit, a tight fitting cover, some heavy weights, and salt in the proportion of about five per cent., mixed with the green stuff as it is pressed into the pit, or "silo," as it is called, are all that is required for efficiently testing the thing.

I understand that the emigration from this country and the continent, to Canada, has been larger during the past year than in any year since 1873; and that the prospects for the ensuing year are of a very encouraging kind. There can be no doubt that the demand for lands throughout Canada and the North west will increase for many years to come.

**Chatty Letter from the States.**

[FROM OUR OWN CORRESPONDENT.]

The American Congress has before it several measures which are of more or less interest to the agricultural classes. The movement to create, in the Agricultural Department, a bureau of animal industry, is a good one, and it seems odd that some such move had not long before been made. It would seem that the aforesaid department had entirely neglected the animal industry of the States and devoted its attention to the distribution of seeds, cultivation of tea, etc. The men who are working for the consummation of the scheme here spoken of, however, have been incited by just one motive: that of getting England to raise her embargo against American cattle. In their zeal to accomplish this end, they seem to forget that there are any other important functions which an animal bureau should try to perform; such as looking out for the advancement of the other branches of live stock, and trying to prevent and suppress contagious diseases of all kinds for the sake of so doing, and not merely because of any action on the part of another country which is looked upon as a valuable market. There are a great many very good and earnest people who believe that the members of the so called Treasury Cattle Commission who get \$10 a day and expenses when on duty, have put the Government to a good deal of useless expense, and that several of them are working for the enormous appropriation asked of Congress, simply to be able to continue their junketings over the country at the expense of the Government. The principle of having such a commission organized, as it is, to look out for the health of the farm stock, is certainly wrong, because it is only fair and reasonable to presume that they will consume as much time as possible, whether anything is done or not.

It is a very nice theory that honest men, as most of the gentlemen composing the said commission are believed to be, will be conscientious in their operations, but it must be remembered that with one, or possibly two, exceptions, that there are no men on the commission who are fitted for the work; they know little or nothing about the diseases which they were appointed to eliminate. Such work should be done by Government employes who should receive regular salaries. Very much better service ought to be had for very much less money than they are getting.

There is, just now, an unusual scarcity of good to prime heavy cattle, and prices for such are keeping up fully 25c. to 75c. per 100 lbs. higher than during the corresponding time last year.

One week, recently, out of 42,000 cattle received at Chicago, there was not a train load of prime cattle. Indeed, there were very few that, in average weight, were heavier than 1350 lbs. The export cattle trade is unusually good for this season, but the highest priced cattle are being slaughtered in Chicago and sent to the Atlantic seaboard in refrigerators. Cattle dealers appear quite sanguine of good prices for good cattle during the next few months. However, the very prospect of good prices based on a scarcity of choice cattle, may conspire to make things appear to go by con-

traries. That is, there is a tolerably general belief that ripe cattle will be scarce, and, at the same time, there is a vast amount of soft corn in the country fit for nothing but feeding, and there certainly is no lack of young stock which might soon be put in good condition by feeding.

There is talk of "a corner" on Hereford cattle. A few breeders and dealers are gathering up all of the thoroughbred bulls they can buy and there is a strong prospect that prices for such stock will be unreasonably high in the spring.

The death of the veteran Hereford champion, W. H. Sotham, early last month, was not surprising, as he was getting very feeble. The Hereford men have lost a zealous champion. His son, Thos. F., is now associated in business as follows, with headquarters at Abilene, Kansas: Hunton & Sotham, breeders and importers of Herefords; and Whitfield & Sotham, western headquarters for "Whitfield" Canadian Shorthorns. The young man recently shipped 84 head of Shorthorns and Herefords to Abilene. While here he sold several head of fine young Hereford bulls at about \$500 each. One purchaser in a private conversation said that he had intended not to buy until spring, but was afraid that if he waited he would not be able to get stock and prices to suit anything like as well as now.

**The Advantages of Maintaining Township Exhibitions.**

BY A FARMER'S DAUGHTER.

It is sometimes asserted that we have too many Fairs. It is said that the great Exhibitions, like the Provincial and the Industrial (not to mention our County Fairs), serve every purpose for which a Fair is needed, and call forth an interest and do a work which it is impossible the smaller Fairs can do—that these latter have served their day and outlived their usefulness, and should now be dropped as an institution which the country has outgrown. With the first part of this assertion we willingly agree. We believe it would be hard to estimate the importance of the work our great Fairs are doing, as an educational influence. But when it is said that our Township Fairs, because of their narrower range and smaller field, should be allowed to become a thing of the past, we beg to enter an emphatic protest. A pine torch may, upon occasion, do a work which the sun is powerless to accomplish; and a small Exhibition, in its own sphere, may exert an influence scarcely less powerful than a great one. In the first place, our large Exhibitions, great as are the numbers they attract, often fail to reach the men by whom their stimulus is most needed. The narrow in mind or in means, the unprogressive, the men who would reduce life to an unending round of mechanical toil (and that class is by no means extinct), if living at any distance, make their visits to our great Exhibitions few and far between. It is a very curious specimen of a farmer, however, who does not attend his Township Fair.

Not the least important of the benefits he gains there is that he meets his neighbors. One of the greatest evils of farm life is the isolation which is too often thought inseparable from it. We hope the class who are seldom at home will not count us as adhering to it, when we

say that the man who is *always* at home, always in harness, will become as hopelessly dull and dispirited as the proverbial old horse in a treadmill, or a prisoner whose world is bounded by the four walls of his cell—not the less, but the more so, that the cell, in this case, is of his own building, and that he himself carries the key. Any gathering, then, for an honorable purpose, which will draw together men who often live too much alone, is a public benefit; and such a gathering is the Township Fair. Among its more specific benefits may be mentioned the opportunity it affords to farmers of comparing views on many points of interest. The animals brought forward, the implements, the products of the field or of the household, are all discussed, their merits or demerits fully enumerated, and the means by which excellence is secured are freely ventilated. He must be dull of brain, indeed, who does not carry away some idea which will be of future benefit. But the comparison of ideas, suggested by the various exhibits, does not exhaust the advantages of their exhibition. A no less important end is secured by the presence of the exhibits themselves. Men wish to know *where to find* good cattle, good grain, good articles of any kind, and the Fair supplies the means without resorting to the wasteful and laborious method of going from door to door. The amount of seed grain secured, cattle bought and sold, implements bespoken for trial and afterwards bought, not to mention innumerable smaller articles, is every year very great. Then the gain to the exhibitors is far from being small. We do not refer to the money value of the prizes—these at a small Fair are not often very considerable—but to the training in good methods of work secured by the effort to win. People who intend to compete for a prize are likely to study carefully the conditions of success; and though excellence, like virtue, is its own reward, yet, as human nature exists the desire to excel forms a powerful motive to well-doing, in connection with Fairs, as well as in every other department of effort; and though that motive may be far from the highest, it unquestionably is a powerful one, and we have to deal with human nature as it is, rather than as it *ought* to be. Often the improvement begun from a desire to be first, will be continued from an appreciation of the superior results secured. But it may be said that the benefits enumerated are not peculiar to Township Fairs; that they result from well-managed Fairs of all sizes, and cannot be claimed as the special property of the small one. Very true. But the special end secured by the Township Fair is that it brings these advantages, in a greater or less degree, to every part of the country. The most effectual way to accomplish any important work upon a large scale, whether in area or otherwise, is to subdivide it; and a township furnishes a district convenient in size for this purpose. Its area is usually large enough to secure for its Fair a more than nominal competition, while it is small enough to be within easy reach of all residing in it, as well as to offer encouragement to competitors who would be afraid to enter the lists on a larger field. In the newer districts and in places remote from railroads, the Township Fair is the only one the majority of the people attend, even the County Fair being thinly represented from these quarters.

Let us, then, retain our Township Fairs. The time *may* come when they will not be needed, but that time is still in the future; and while we seek at once to absorb and to reflect the light shed by the great Exhibitions, let us not despise the beams of our own little rushlight—the Township Fair.

## The Apiary.

## Comb Foundation.

BY WILL ELLIS.

All modern or practical bee-keepers use comb foundation. Scientific men claim that it requires the consumption of five or more pounds of honey to produce one pound of wax. Comb foundation is made by heating bees-wax in a large boiler; after it is all melted a board is dipped in the melted wax, which adheres to each side of the board. When it is cool the wax peels off and is run through between rollers, so cut that they form the base of the honey comb. A sheet of this is fastened (the full size of the frame) by means of melted wax or pressure, to the top bar or comb guide of frame, in which is a saw cut one-eighth of an inch in depth. I wire all of my frames (the Langstroth) and pierce four holes in the top end and bottom bar and thread through, from top to bottom, wire No. 30. Cut a board so that it will just fill the frame inside and exactly one-half the width of the frame; lay your sheet of foundation on this board, and by means of a button-hook grooved on the back with a small file, imbed the wires in the wax. I usually take a small paint brush, and with a small pan of wax I fasten it a little besides.

If you do not wish to use wire the brush is the best thing to use when fastening with wax. When working for comb honey a piece of the foundation is fastened in each section by pressure or melted wax. The foundation used in sections is made from the brightest and nicest wax that can be procured; is generally used from eight to ten square feet to the pound. (Many may wonder why it is used who are not practical apiarists). A frame of comb foundation can be placed in a strong colony of bees in the evening when honey is coming in plentifully, and by the next morning you will find it drawn out to a beautiful white comb. This last season a vagrant swarm came to my apiary and wished to make their home with the rest of the bees; of course I was perfectly satisfied they should do so. This was on Sunday. I gave them one frame of comb containing unsealed wood to entice them to stay in the hive and not to abscond after being hived. With this frame of comb I placed nine frames of comb foundation, and by the following Thursday they had every sheet down and filled with honey.

In twelve days they had drawn fourteen sheets of foundation. Of course, I took away the frames of comb, and placed foundations in their place. This was in the latter part of the honey season. Under the top bar of the frame is a thin strip of wood so sawed that it fits tight in the groove, called the comb guide; some use them and some do not. I think it is better to use them if you do not wish to use comb foundation. The bees will generally commence to build their combs on the comb guide, thus getting the combs built in the frames, and not crosswise. I should have said that by using comb foundations there was no drone comb built, thus preventing the rearing of a large number of worthless drones.

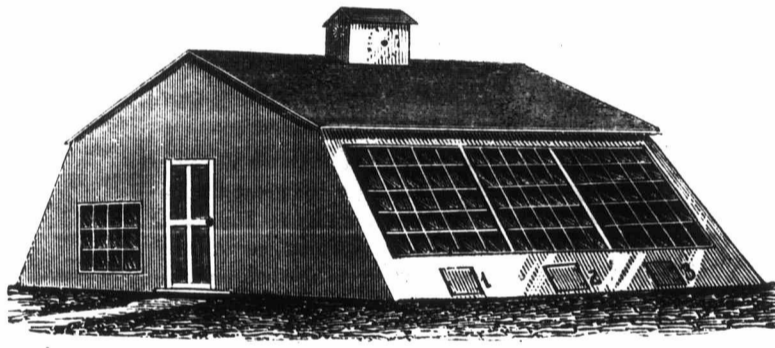
## Poultry.

## A Model Hennerly.

The accompanying cut represents a cheap and convenient hennerly. There is nothing which adds more to the health of fowls than plenty of light. Poultry cooped up in dark, small houses, never thrive, and invariably become deceased. In the sketch it will be seen that nearly the whole of the side facing the south is one large window, thus giving the fowls the benefit of the winter's sun. If the windows are placed near the ground it will be necessary to cover the lower panes with wire. The roosts are placed along the north side.

## "Satisfaction Guaranteed."

It should be the desire and the effort of all breeders and dealers to make their customers satisfied, though we well know that it is, in some cases, almost an utter impossibility to do so. There are some who buy a lot of poultry from a breeder at a dollar a head, and when the birds are received, the purchaser growls because the birds do not score well up in the nineties. Another purchaser pays five dollars (an immense sum, in his eyes) for a trio of fine



A MODEL HENNERLY.

fowls, and when they fail to take "First" at a poultry show, he is dissatisfied. There are still others who beat down, in price and patience, a breeder for his birds, and then growl about the birds not being better than they are, one of the greatest troubles which the breeders have to contend with being the ignorance of their customers. On the other hand, there are some breeders who offer extra stock at low prices, and it is seldom the purchaser gets more than he pays for, though he has reason to expect better from the description. When a purchaser pays the price asked for a first-class (everyway) lot of birds, he has a right to expect stock fully up to the description, and if the stock fails to please, any honorable breeder will do all reasonable things to make him so, even though he (the breeder) may feel that he is doing much more for his customer than he is legally or morally bound to do.—[Poultry Monthly.]

Increase the feed as winter advances.

A pint of "gumption" is worth more on the farm than a bushel of science.

Good sheathing paper, nailed on the inside of stables, fowl-houses, etc., will save a deal of cold and feed, in buildings that are a little the worse for wear.

## Stock.

## Shropshire Sheep.

[BY OUR OWN CORRESPONDENT.]

The breeders of Shropshires have thought it due time they had a flock book of this high class of sheep. Twelve months back most of the breeders met, and formed what we call the Shropshire Sheep Breeders' Association and Flock Book Society; and now we have the first volume printed, and no trouble has been spared by the council and secretaries in having everything correct, and working up the pedigree of the first rams that were exhibited at the Royal Show. Not only shall we find this book of great value to ourselves, but it will be of great assistance to our Canadian friends when they come over for a little flock of sheep, in having them pure bred.

In establishing a flock book, the breeders require no lengthened statement of the history or merits of the breed in general, or of individual flocks in particular. Their object is to secure in the future absolute purity of lineage to any flocks or animals that are called Shropshires. Much has been written respecting the Shropshires, and their celebrity for wool and mutton adverted to by various writers of times long passed. They seem to have been a class of sheep that had very little attention till the last forty years; but are believed to have existed in Shropshire in the fourteenth century. Smith, in his History of Wool and Woollen Manufactures, quotes the price of English wools in 1341 as follows: Shropshire county, one dollar and twenty-five for the stone of 14 lbs., while no other county came up to the average of more than one dollar and four cents per stone. Plymley, writing on the agricul-

ture of Shropshire in 1803, ascribes the Longmynd as the habitat of the ancient Shropshire. While Professor Wilson, in his essay on the various breeds of sheep in Great Britain, speaks of Marpe Common, near Bridgnorth, as being a large tract of land occupied by this hardy and indigenous race of sheep.

The originality of the breed as one of great value is therefore abundantly proven, and there is no reason to doubt that it was spread generally over the hilly ranges and uplands of Shropshire, and, though not absolutely identical, a very similar, well known and equally valuable race, upon which many of the Staffordshire flocks have been established, ranged the unenclosed pastures of Cannock Chase in that county. Generally speaking, no attempt was made to keep accurate flock books until the first recognition of the breed in the show yard of the Royal Agricultural Society of England, at Gloucester, in 1853, which was due to the instrumentality of Mr. W. G. Preece, of Shrewsbury, and the Hon. Robert Henry Clive, M. P., the latter of whom there offered special prizes for Shropshires. Founded on natural characteristics, it is to the good judgment in selection on the part of the majority of the breeders, that the Shropshires have obtained their present well known notoriety for hardihood, fecundity, excellence of quality,

both of wool and mutton, and early maturity. At the same time they carry so large a proportion of lean meat to fat that Shropshire sires are now largely used for crossing purposes in all parts of the world.

The exhibit of Shropshires at the Birmingham fat stock show, on Dec. 1st, 2nd, 3rd, 4th, 5th and 6th, 1883, was very strong. The average live weight of wethers aged 21 months, was 228 lbs.; dead weight, 152 lbs., which cannot be equalled for weight and quality by any other breed of sheep. If they keep on spreading as rapidly as they have of late, in a few years the white face sheep will begin to get very scarce in England. Not only in Shropshire are they kept now, but on the hills of Wales and mountains of Scotland and Ireland. They will suit any country and climate, and the butcher will always give two and three cents per lb. more for this mutton than for the white face.

Another great point the Shropshire sheep breeders have been inquiring into, is, how different breeders keep their ewes, and the average of lambs each ewe produces.

Next year the Royal Show will be held at Shrewsbury. The prizes to be given for Shropshire sheep alone are over \$2,000, besides two cups, one for the best pen of five ewes, the other for the best ram, which are worth \$250 each. There is no doubt but it will be the largest show of Shropshire sheep ever witnessed. If any of your Canadian friends are coming over for a few sheep, they should not miss the Royal next July.

#### More Stock.

In Ontario we rely entirely too much upon grain farming, whereas we ought, by this time, to have learned the lesson indispensable to success, viz.: that we must plough less and handle more stock, or find our crops gradually but certainly decreasing. The work of our fathers consisted largely in clearing and tilling the land, while ours must, in part, at least, consist in resting and enriching the over-taxed soil. This may best and most profitably be done by stock-farming. In our experience stocking and top-dressing have proved most satisfactory, both for cleaning and enriching the soil. Given the thoroughbred Shorthorn, with less trouble and similar outlay farmers can raise a \$100 calf, and get that price as easily as they can raise a \$30 grade. And had they the means for producing a dozen bull calves each season, they would find no difficulty in disposing of them at remunerative figures. But we would urge strenuously upon every man using *none* but a thoroughbred bull *every time*. True, it is possible for a grade to leave good stock, but the chances are greatly against him, too much so to be risked. There is no trouble in realizing from \$25 to \$35 for high grades at six to eight months of age. But to secure these figures requires the most careful selection of the parents. Great discretion must be used in mating in order to bring out the best results. We have always made it a point never, if avoidable, to use young bulls, always preferring a three-year-old or a five-year-old to younger ones. And, to all those neighborhoods not already supplied, we would say, take steps at once to secure what you want, as they will, later on, both become much

scarcer and higher in price. Another serious error farmers too often fall into is the attempt to grade up from scrub stock. We tried this with half and three-quarter bloods, but gave up in disgust, and went and bought what we wanted. Life is too short to grade up if a better course can be adopted. And it is much better to get at the score at once. High grades are what the English market requires; and these only will prove remunerative to the handler. With

#### SHEEP

we would say, get good ones and feed well, always using an improved ram for the Down breed. We say of the Down breed because experience and testimony both bear us out in the assertion that to secure the best results to be obtained in the English market, the Southdown ram crossed upon the common longwool sheep of this country fills the bill most admirably. It is a very shortsighted policy to keep sheep for wool only. Better have two strings to your bow, viz.: wool and mutton, and the best possible quality of each; but mutton must be the main string. By handling more stock and ploughing less, we will have much more spare time for improvements, such as putting in tile, tree planting, etc.

#### Holsteins as Beefers.

BY S. E. COOK.

Considerable discussion has of late arisen in regard to the claim of the Holsteins as beef cattle. The Dutch cattle are comparatively a new breed in America, and it is but natural that fanciers of the old established breeds should feel a trifle jealous of the virtues of the new-comers. Hence the Jersey man denies her title to be a butter cow. He argues that quantity is incompatible with quality. The recent triumph of "Mercedes," with her record of over 99 lbs. of butter in 30 days, is a sufficient answer to that argument, and proves that though the little Jersey may win in a week's test, the stamina and power of "holding out" are all on the side of the Holstein, and in a prolonged test she is there. Even "Mercedes" triumph has been claimed for the Jerseys by Mr. Couture, V. S., at the recent meeting of the Quebec Dairymen's Association. It is in regard to her beefing qualities I wish to speak. Here the Dutch cow is derided by the Shorthorn and Hereford men, and your correspondent at the Chicago Fat Stock Show pursues the same course and says, "Little can be claimed for them (Holsteins) on that (the beef) score." Now, if by beef is meant an enormous development of tallow with very little muscle, then the Holstein stands below par; but if (to use your own words) "animals that could attain the best mixture of fat and lean, sufficient to become marketable and profitable beef" are desirable, then the Holsteins may be considered respectable beefers. Even on their own ground (the Fat Stock Show) the Dutch will, in the near future, enter into competition with the Shorthorn, and at the recent meeting of the Holstein Breeders' Association at Chicago several members volunteered to fatten specimens for the Fat Stock Show in 1884. For veal Holstein calves excel.

Messrs. Smith & Powell say: "Our calves for the first three or four months usually gain

about 100 lbs. per month." The weights of a few of their bulls may be interesting also: "Prince of Edam," 4 years, 2,410 lbs.; "Beaconsfield," yearling, 1,390 lbs.; "Sentinel," 23 months, 1,425 lbs.; "Neptune," 26 months, 1,725 lbs.

Edwards Bros., of Ottawa, Ill., large dealers and butchers, say: "We have had practical experience with them (Holsteins) in the London (Eng.) trade, and have long been aware of their desirable qualities as beef cattle, for thousands of them are cut up in London markets every month. For veal calves the Holsteins stand without an equal. This is admitted without dissent, and as mature beef cattle we believe them fully equal to any others. The fat is evenly distributed over the carcass; the meat well marbled, and there is but a small percentage of waste. We have killed a great many grade Holstein calves in this city within the past two years, and although they are hardly up to the full bloods we have dressed in London, they are far ahead of the average natives and grades. Full blood mature Holsteins are yet seldom to be had in this vicinity to kill; our first opportunity occurred last week in the form of a four-year-old heifer. She weighed 1,705 lbs., and dressed 1,036 lbs., and had 161 lbs of rough tallow. She was very thick on the rib, her fat evenly distributed and the meat well marbled. We use in our trade the best Shorthorn and Hereford steers we can buy, and this heifer was fully equal to any we have cut."

The experience of other practical men fully corroborates the above, for instance:

Mr. Geo. L. Wells, of Wethersfield, Conn., under date of May 24, 1882, says: "I have fattened a good many grade Holstein steers, and always found them do well; fattening easily and growing to a good size, sometimes weighing at four years old, live weight, with but very little meal, 2,200 lbs."

Mr. S. Aiken, Decorah, Iowa, writes: "I sell cream at the creamery, and feed the skimmed milk to my calves and pigs. My calf, 'Geo. Le Baron' (1323) weighed at three days old 120 lbs.; at four months, 400 lbs., and at six months and ten days, 600 lbs., and was not fat, only in condition. My two-year-old heifer 'Ryanata' (1131) weighed in November 1,365 lbs., and my yearling heifer 'Steenie' (1378) weighed at 21 months, 1,172 lbs.; my bull 'Jacques' (765), two years and seven months old, weighed 1,700 lbs. I find my Holsteins beat my Shorthorns in growth on the same feed."

Mr. Geo. P. Weber, Paronee, Ill., says: "Of sixty good grade steers I fed last summer, at two years old, five were grade Holsteins, the rest grade Shorthorns; all were fed alike from the time they were calves. After the five Holsteins were out, could not pick five more as good, and certainly the five dams of the Holsteins were not near so good as the dams of most of the others."

Now, sir, I think I have given sufficient evidence to show that the Holsteins, possessing, as they do, hardy and vigorous constitutions, and taking on fat when not in milk, are destined at no distant day to take a front rank among the great beef breeds. Their valuable qualities are perhaps more fixed than those of any other kind, and a description of the Hol-

steins, written nearly 100 years ago, is a pretty accurate representation of the breed of to-day. In the diary of Mr. Samuel Forman, one of the first settlers of Cazenovia, N. Y., in 1793, reference is made to an importation of Dutch cattle (made in 1795 by Mr. Lencklean, agent of the Holland Land Company) as follows: "The cows were the size of oxen; their colors were clear black and white, not spotted, but large patches of the two colors; very handsome bodies and straight limbs; mane middling size, but gracefully set; their necks were seemingly too slender to carry their heads; their disposition mild and docile."

Though many more facts might be cited, I fear I have already trespassed far too much on your valuable space. I trust the day is not far distant when the Holsteins will be received and judged on their merits, instead of through

#### The Logan Farm at Montreal

Is considered by many to be the most valuable farm in Canada. The accompanying engraving represents some of the farm buildings. The farm consists of about 200 acres of very fine rich land, fit for gardening purposes, and is situated at, or in Montreal. No farm that we have yet seen possesses such facilities for procuring manure; the land can be made too rich any year, almost without cost, as it may be said to be in the city of Montreal; houses are thick around it, and the farm would long ere this have been covered with buildings if the proprietors would have disposed of the land. It is so situated as to command the markets of the largest city in Canada, as well as the markets of the world. This splendid property belonged to, and was the residence of the late Sir W. Logan, and is now occupied by

she gained the special prize of \$25, as best milch cow, in competition with all other breeds. At the same fair she took 2nd prize for cow over three years; 1st at Ottawa in 1878; was also one of the herd that got the 1st prize, and was one of 5 which gained the iron plow as a special premium at this exhibition. At Hochelaga County Fair, in 1878, she obtained 1st prize, and 2nd at the Dominion Fair at Ottawa in 1879; 1st prize at Hochelaga show in 1880; at the Montreal Provincial in 1880 she took 1st prize for aged cattle, and at Montreal Provincial Exhibition in 1882, she was one of a herd which gained first prize of \$30.00 and diploma.

Mr. Irving has a fine herd of this class. He also is an extensive breeder of Clydesdale horses, from imported stock. Of poultry of every description he has a fine lot. When we



FARM-YARD SCENE ON MR. THOMAS IRVING'S FARM, MONTREAL.

the colored glass of prejudice, which is but too much the fashion at present. The time is assuredly approaching when the demand for the Dutch cow will not be confined to her performance at the pail, but she will be in quest to help to fill the void on the great plains of the West. In other words, the qualities of the Holstein peculiarly adapt her to the rich, grassy plains of the prairies; her hardiness enables her to stand the severest of northern climates, and her capacity for converting her food rapidly and with certainty into milk or flesh makes her desirable for the great majority of our farmers.

You can tell a poor farmer by the bones and shells in the roadway. Planted at the roots of trees and plants they would furnish manure of a desirable kind.

Mr. Thomas Irving, who is a good farmer and manager. His farm being so conveniently situated, he can command any amount of cheap labor at all times, and the crop of hay, grass, roots and vegetables grown are enormous. The Hochelaga County Plowing Match was held here during the past season, and to judge from the teams and plowing we have seen in this locality, we very much doubt if Ontario could show better teams or work than was done at this match. Mr. Irving takes great pride in his stock, and is the owner of many fine animals. In the engraving will be seen his fine old Ayrshire cow, Gipsy Queen, the winner of the following long list of prizes:—

Gained the 1st prize at Ottawa Exhibition in 1874; 2nd prize at Ottawa in 1875; 1st at the Provincial, at Montreal, in 1876, and was one of the herd that gained 1st prize at the same exhibition. At the Quebec Provincial in 1877,

paid a visit to the farm his daughter went out to feed the fowls; a large Newfoundland dog accompanied her and carried the pail full of feed quite pompously. As soon as the mistress and dog appear there is quite a flutter from the different sheds in the yard and from the tops of the various buildings. When the pail is empty the dog carries it home, and is generally rewarded by a bone with something on it. Perhaps some of our young readers can train dogs to some such useful purpose.

Whoever depends on the milk strainer for securing clean milk will never make gilt-edged butter.

Mr. A. H. Goderich, says that he finds saw-dust a "most powerful absorbent;" a load of it, costing 40 cents, mixed with road dust will bed as much stock as half a ton of straw which may be worth \$5.



Garden and Orchard.

Statice Suworowi.

Great credit is due to Mr. J. A. Simmers, seedsman, of Toronto, for offering for the first time this season, by far the finest of all annual Statice, and indeed one of the showiest annuals we possess, similar in habit to *St. Spicata* but greatly superior to it. Its branching flower spikes of a very bright rose with a crimson shade appear successively, from 10 to 15 on each plant, and measure each fully 15 to 18 inches in length, and from one-half to one inch in breadth; the foliage lying flat on the ground, is comparatively small and completely hidden by the numerous flower spikes, each leaf being about five inches long and one and a-half to two inches broad, undulated and glaucous. One plant will last in flower more than two months, and if sown in succession from February to April, it may be had constantly flowering throughout the summer and autumn. A whole bed of this lovely plant in full bloom is a truly magnificent sight, being only one mass of flowers. One of the finest novelties lately sent out.

Growing Small Fruit for Family Use.

BY W. W. HILBORN.

In the first place I would ask, "Why do not more people grow enough small fruits for their own use?" The little time and outlay required to grow enough to supply the table the year round, either fresh from the plants or in a canned state, cannot be used in any other way to give the same return for the outlay. The taste for them is increasing very rapidly in Canada, and the time is not far distant when every well-regulated farm will have its small fruit garden. When people once initiated into the right way many of them would as soon think of doing without potatoes as small fruits, as they are essential to health and comfort. The first to ripen is the strawberry, of which there are a great many varieties that are very valuable, but not one of them possesses all the qualities of a perfect berry; it

therefore becomes necessary to plant several sorts, but for home use about three or four kinds are enough. Should you prefer quantity, plant *Crescent Seedling*. We have grown over fifty sorts and the *Crescent* will produce more quarts, one year with another, by one-third than any other variety. But they have pistillate blossoms and have to have a staminate sort planted near them—the *Wilson* is one of the best for that purpose. We plant four rows of *Crescent*, then two rows of *Wilson*, alternately. The *Crescent* blossoms later than the *Wilson*, and the leaves cover the blossoms well, which protects them from late spring frosts. We prefer a strong rich clayey loam, well under-drained. For such soil I think *Crescent*, *Bright Ida*, *Maggie*, and *Wilson* will give the best satisfaction. Of the well tested sorts, we can grow the most quarts with the least expense by planting in rows four feet apart, and twelve to eighteen inches apart in the row.

Plant early in the spring, cultivate, and keep clean, and allow the rows to get about one and one-half to two feet wide; mulch with straw as soon as the ground freezes in the fall. In the spring, when growth commences, part the straw over the rows to let the sun have full power over the plants, leaving the straw between the rows to keep the fruit clean and soil moist.

Raspberries come next. The early varieties will ripen before strawberries are all gone, and thus keep up the succession. Of the *Blackcaps*, the best varieties are: for early, *Souhegan* and *Tyler*, with *Gregg* for late. Of reds the *Turner* is the most hardy of any raspberry, is free from thorns, and is the best early sort for family use. *Cuthbert* is the best later. To grow *Blackcaps* it is best to plant them in rows six to eight feet apart, and three to four feet apart

neglected since the currant-worm made its appearance. With a great majority of farmers they are altogether neglected: but with a very little care at the right time we can have just as good crops now as ever before. We have practised for several years sprinkling the bushes with hellebore—a spoonful to a pail of water, and put it on before the worms make their appearance (when the leaves are about the size of your finger nail, is the right time). Be sure to thoroughly wet the centre of the bushes and body down to the ground. We seldom have to repeat the application, and it is very rarely we find a worm on them after. Putting it on at that time appears to prevent them hatching out and getting up to the leaves. The new red currant, *Fay's Prolific*, gives promise of being the most valuable of any variety.

ARLONA, Jan. 12th, 1884.

Hardiness of Apple Trees.

BY D. NICOL.

Apple culture is one of the interesting and most profitable branches of husbandry, yet it is a remarkable fact that under the sun there is no pursuit in which are to be met with so many perplexities, disappointments and discouragements, and it is not to be wondered at that in some parts of the country many turn away from it in disgust. Persistent hopefulness is a true characteristic of the successful fruit grower, and it may fairly be presumed that they who do succeed are largely endowed with the essentially necessary virtues of patience and perseverance. The success of apple culture, however, depends very much upon the knowledge of the culturist as to what varieties are most suited to his locality and climate.

In the reports from societies and associations published from time to time in the agricultural and other journals, we see so many diverse opinions and such apparently contradictory statements that many, without knowing the chief causes for such discrepancies, are disposed to discredit them altogether. It is needless to say that all apples are not alike in hardiness (almost every one knows that), but I am certain that the difference is much greater than many suppose, while some think the difference is trifling, and that is my reason for calling attention to the subject.

Life is too short to afford many experiments with orchards. A profession may be learned in a few years, but apple culture can scarcely be learned in a lifetime, and whoever engages in the pursuit with a view to profit must rely chiefly on the experience of those who lived before him, and it is of the utmost importance that he exercise good judgment in trying to obtain as nearly as possible correct information on the subject.

We hear a great deal from presumptuous theorists about acclimating fruit trees, and it is surprising how successful they have been in imposing on the credulous public, who are ever willing to believe a thing which they would like to be true. I have seen thousands of experiments made in trying to acclimate fruit as well as other kinds of trees, but I have yet to



STATICE SUWOROWI.

in the row. When the new growth gets fifteen inches high the first season, pinch back; second year let them get about two feet before pinching back. When the laterals, or branches, get twelve to fifteen inches long pinch them back, also keeping your plants in a close hedge row; they will thus support each other and not need staking. Cultivate between them with a corn cultivator, and cover the space you cannot cultivate after the first season with coarse manure. Red sorts can be planted in rows five to six feet apart and three to four feet apart in the row. Pinch back the same as the black sorts but do not give them any manure until you have taken off two or three crops of fruit. Cut off all suckers as soon as they make their appearance, letting but four or five canes grow in each hill.

Currants and gooseberries come just after the first raspberries. They have become much

learn of one single instance of success, or even partial success. I have been trying for the last thirty years to acclimate some of the tender kinds of apples, but I cannot yet find that I have accomplished anything which leads me to believe that a tender tree can be made more hardy by being planted in a colder climate, even if the transition be made gradually. The toughening process has with me invariably proven disastrous.

I find that by top-grafting on crab stocks some of the fine varieties will endure a severe winter better than when root-grafted on common stock. Only a few varieties, however, make a good union with crab stocks. Robust kinds of apples do not succeed well on slender growing crabs. The Transcendent is by far the most robust growing crab, and is, consequently, the best adapted for the purpose of top-grafting.

All soft-wooded apple trees which make large, soft shoots, and which grow late in the fall, are liable to be killed by a severe winter; the young wood not being ripened, is much more tender than that of hard-wooded, early ripening kinds, such as the Duchess of Oldenberg. We know that on the western peninsula, all the leading varieties, including the Baldwin and R. I. Greening, succeed very well, because, being in proximity to the open water of the lakes in winter, the humidity of the atmosphere serves to counteract the injurious effects of the cold and to check the intensity of the frost. This is proven by the fact that even south and west of the great lakes a few miles, tender sorts which prosper near the lake shores cannot be grown at all.

On the north shore of Lake Ontario the Northern Spy (which is almost universally acknowledged to be the king of apples) is grown to perfection. A few miles inland it only partially succeeds in favorable localities, and 25 miles north of the lake it cannot exist; only hardy kinds survive the winters at that distance from the lake, and north as far as the Ottawa river none but the hardiest kinds of crabs can be grown, and they are hardly worthy of being called apples.

It is very evident that although crabs may live where the frost reaches 35° below zero, some kinds of apples need not be planted when the thermometer goes 25° below zero. We have had a succession of mild winters, and here near Kingston the thermometer has scarcely come down to that point, so some of us think, and are flattering ourselves that because some certain kinds have stood apparently uninjured for seven or eight years, they may be relied on as being suitable to our climate; but, if ever a winter comes again like that of 1872-1873, with the thermometer several times at 33° below zero, our pet trees will certainly be thrown into decline, if they are not killed outright. But here I would remark that the effect of intense frost depends somewhat on the condition of the tree. Sometimes we have a mild February with deep snow and very little frost in the ground; the trees then become gorged with sap, and just as a tube filled with water will be burst by hard frost, so will an apple tree which is full of sap. Apple trees are much more liable to be injured by intense cold in spring than in the forepart of winter.

The climatic range of the apple in North

America may be said to be between the 40th and 46th parallels of latitude; farther south they become so flavorless and insipid as to be almost worthless, and north of the 46th they can only be grown in favorable localities, near the shores of the great lakes. So, while the whole continent is being rapidly populated, the production of apples can scarcely be expected to keep pace with the continually-increasing demand, for besides destructive frosts there are many other causes of failure.

Low, flat land, with wet subsoil, which is the home of the willow and the alder, can scarcely ever be drained sufficiently for successful apple culture, no matter what the climate.

Apple trees naturally root deeply, and although they require moisture in summer, they cannot thrive with their roots in water, even part of the time. On wet-bottomed land apple trees are but short-lived.

Root-killing through excessive droughts in some regions is another frequent cause of failure in orchards. Some soils are liable to be rendered so excessively dry by protracted droughts in summer and fall as to destroy even the hardest varieties. A shallow soil on flat rock or hard pan is very unfavorable, because the roots are kept so near the surface that they are certain to be injured and probably killed by severe drought. In view, then, of the liability to such droughts, the soil best suited for apple culture is that in which the trees can root deeply without coming in contact with wet. Such soils as are to be found on sand or gravelly bottoms, not on wind-swept knolls, where the ground is often bare during the winter, for that is another cause of failure. All kinds of fruit trees are benefited by shelter, and I know that some kinds of apples do well under shelter which cannot endure exposure, even in the same locality. In regard to the hardiness of the leading varieties (for here I will speak of them only) I would say that there are but very few of them which are nearly as hardy as the crabs. They are the Duchess, Wealthy, Letoffsky and Manu, and among those which can endure the cold at 25° below zero, say ten miles north of Lake Ontario, are the Golden Russett, Fameuse, St. Lawrence, Canada Red, Colvert, Red Astrachan, Ben Davis, Rare-ripe, Maiden's Blush and Waggoner.

Among the sorts which I have found to be tender, and which thrive near the lake shore only, are the Baldwins, R. I. Greenings, Northern Spy, King of Tomkins County, Fall Pippins, Gravenstein, Ribston Pippins, Primate and Rambo.

One cannot be guided altogether by latitude in this matter, for we find that the effect of the cold is not more severe on fruit trees on Manitoulin Island than in the County of Lanark, which is about one degree further south. This seems to be entirely owing to the influence of the surrounding open waters.

The Gardeners' Monthly says weakly and weatherbeaten evergreens are improved by cutting. But in their case the leader must be cut at the same time, even if we have to train up a side branch to make a leader. Evergreens sometimes show little disposition to make leaders, but they will do it if they are severely pruned.

### Peach-Yellows and Insects.

BY WM. ARMSTRONG.

Now, with regard to the damage done by the Hemiptera, for an account of which see the last October number, page 308.

The largest is provided with a sharp beak, with which it punctures the wood when the sap is running freely, say from June to August.

In October and November this wound is covered with a thickish gum; these gum patches are about the size of a five cent piece, and generally on the trunk of the tree, but often on the branches. I saw one orchard of last spring's planting completely riddled with these punctures, and found the bug on the tree. This was in New York State. I have not seen anything half so bad in Canada.

This gum will be removed by the next summer, showing the dead wood. The tree wherever punctured has received damage two-fold. First, by a loss of sap, (which is the life), second, the sap is poisoned which flows past this puncture, both at the time and afterwards.

Wherever this waste and poisoning of sap takes place, it will be seen the following season by stunted growth and other signs of disease, unless there is a forced growth given the tree to overcome this damage by extra cultivation and feed.

I am sorry to believe that if the tree is stung, let it be in one place or more, it will at last succumb, perhaps by more stings in future seasons, by an over crop of fruit which will be affected; these and poor cultivation all combined will drain the vitality, and hasten disease and death.

Now about the insect which is the most destructive of all to the peach tree.

I forwarded you specimens of wood cut from my last spring's planting of peach trees. Upon examination you will find a row of deep punctures, in which are the long eggs of the *White Cricket*. You notice they are of a bright amber color, about one-sixth of an inch long. In the first warm weather they begin to grow and turn white, and when fully developed are about one-fourth of an inch long, or small, white grubs, and, I believe, fall to the ground, and then attack the tree just below the ground, where they may be seen and found under a quantity of soft gum close to the inside bark, in numbers say from three to nine.

I believe these white grubs develop in another season into the well known *Peach Borer*. These White Crickets are more at home in the grape vines and raspberry canes, but of late years have taken a liking to the new tree wood of the peach tree.

The damage done by this insect is sufficient to cause all the disease and blight that is commonly known to the peach tree.

You notice these punctures do not girdle the branch, but are inserted lengthways, so that two-thirds of the branch appears to be still healthy looking, although the remaining third is dead.

My experience with regard to this damage is that if the tree is a very vigorous grower it will partially overcome or overgrow this wound or poisoning, and will give one or more crops, if not allowed to overbear, which it will have a tendency to do. If the tree is not a good grower, this branch may have one crop, and that a very poor one, bad color and flavor.

Remember I have now spoken of one branch on a tree punctured like specimens sent you.

But in the event of the tree having several branches thus punctured, and have the poisoning and drain of sap caused by the *Hemiptera*, as already described, and also have the *peach borer* at work, why the tree will show signs of disease and death in a year or so, and may never bear a crop, and if it should, it will be an abundant crop of trash, and is then beyond remedy.

It generally takes several years to produce the effects just described, as the insects are not yet numerous in Canada, but are on the increase.

Depend upon it, friends, the insects must first work before the tree is troubled with poison, grub or disease.

Thanks to a kind Providence for Jack Frost, as he is a good friend to the fruit grower, because he destroys more fruit pests than all other agencies combined.

And now you ask, "What about the remedy?"

During the coming season I expect to make, or try, several experiments, and will endeavor to give you the result within a year from now.

I may say that the insects work during the day, except the White Cricket, which works at night. Also that no person is competent to give a satisfactory explanation of this so called Peach Yellows, unless he is a practical grower, daily observing and tracing the cause of certain effects; and more, it takes years of observation to get the chain of evidence; if we fail in one or more links of this chain, our knowledge is imperfect.

I have made it plain, to my own mind at least, that the insects I have tried to describe are the first cause of the effects so ruinous to the peach tree, and I humbly submit this experience to all whom it may concern, with a hope that practical men who are growers of the peach may be led to investigate and give the result to all.

#### Manures for Bulbs.

An ounce of nitrate of soda dissolved in four gallons of water is a quick and good stimulant for bulbs, to be applied twice a week after the pots are filled with roots, and the flower spikes are fairly visible. A large handful of soot, or about a pint, tied up in a piece of old canvas, and immersed in the same quantity of water for a day or two, will furnish a safe and excellent stimulant: also good and safe is a quarter of a pound of cow manure mixed in a large garden pot of water, and used as required. Any of these stimulants will do good; or the whole of them applied alternately will benefit bulbs that need more sustenance than the soil affords.

For beautiful spring foliage no plant gives a more pleasing effect than our common tamarack or larch. The soft, charming green of its early foliage is imitated by nothing else. The tree will thrive on ordinary soils.

An Ohio farmer washes his apple trees every spring and fall with a strong lye that will float an egg, and finds it to be sure death to the borers. He claims that he has not lost a tree since beginning this practice, although he had lost several previously.

### The Dairy.

#### Small Fancy Cheese.

BY L. B. ARNOLD.

A correspondent at Dundas, Ont., asks for information about the best varieties of small fancy cheese, with the view of manufacturing for the large cities of the United States, and also for those of Canada. The request is indicative of a growing disposition to push out into new and more profitable enterprises in the way of cheese production. All such aspirations are favorably looked upon, and ought to be encouraged whenever they lean toward feasible results, because it is from such impulses that most of the improvements in any branch of business originate. When one is so far familiarized with any branch of business as to become sensible of its defects, he is getting ready either to mend the defects, or to cast about for something better. It is useless, however, to think about making fancy cheese in Canada for selling in the States with our present tariff of four cents a pound in the way, nor is it a very safe business for cheese makers in either the States or Canada to venture far in new varieties of small cheeses with an expectation of a ready market in the cities of either country. People everywhere purchase cautiously of goods they are not familiar with, especially if the new sorts cost more than old ones. Small cheeses cost more than the common size, and as a rule are no better, and, I may say, generally not so good. They dry up sooner, and lose more in shrinkage, and have a larger surface in proportion to weight, and, of course, more and deeper rind, all of which detract from their value and increase the cost of a given weight. They are also more expensive to make than larger ones. There is some offset to these objections. They are less liable to injury in transporting, and save wastage in cutting by being sold whole. These advantages, however, seldom balance the numerous objections to them, yet they are sometimes made with a fair profit. The only small cheese now manufactured in Ontario to any extent, that we are aware of, is the truckle cheese, or Stilton-shaped cheddar, known on this side the line as Young America; but these it is unsafe to manufacture without knowing beforehand where and how they can be disposed of. Dealers who keep a run of the different markets occasionally find opening for such goods, and can contract for their manufacture with safety.

There is a limited market in all the large cities for Edam, Gouda, Stilton, Switzer Case, Limberger, and several varieties of soft cheeses like the Camembert and Brie, and good prices are paid for them, but the consumption of most of them is so small that it would be exceedingly hazardous for those living in the interior to venture upon their manufacture in any large way without first acquainting themselves with the precise wants of the consumers and how to satisfy them. In other words, in any attempt at supplying new and small demands, the only prudent way is to begin in a small way and to expand no faster than a market can be worked up. In the valleys of the Mohawk and Hudson Rivers, there are parties making several varieties of soft cream cheeses and selling them at

paying prices, but they are so situated that they can run their goods into market every day and almost at any time of day, and have the benefit of personal acquaintance with retailers who take the products direct from the makers and put them at once into consumption. They keep themselves informed of the exact wants of the retailers, and limit productions to those wants. Persons who have not some such advantages, but are wholly dependent on the general market, would be exceedingly liable to "get left" with their cheese on hand if the market should happen to be rushed a little too much, and to suffer loss if the varieties were at all perishable.

Writers for the agricultural press, who write more from mental impressions than from personal familiarity with the matters about which they write, are often urging the immense advantages of manufacturing more sorts of cheese as the most efficient means for increasing a home consumption of cheese and for opening a wider market, and thus relieving the pressure upon the staple sorts by the division of milk to the manufacture of new varieties. The philosophy of such writers does not work as they calculated. To the extent that new sorts are more appetizing than old ones, their introduction will tend toward expanding consumption, but in most cases the consumer who purchases a new variety does so by ceasing to purchase an old one. It is only a change from one sort to another, which does not very much affect consumption unless the new sort is very much better or cheaper, which is seldom the case. For the benefit of the cheese trade it would be much better to improve the common staple article with which the public are already acquainted. The introduction of European varieties would be very useful to the extent of supplying adopted citizens whose tastes have been already educated to their use, but beyond this they would make little progress, as a taste for them would have to be cultivated by our native citizens, and this is always slow work. As several European styles of cheese sell in a small way in some of the larger cities, at prices considerably above our common cheese, it is often supposed that the enhanced price is due to superior quality, but it is seldom so. The extra price is paid to supply foreign-born citizens with cheese to which they have been accustomed, and which they prefer to American cheese simply because they have been accustomed to one and not accustomed to the use of the other, and not at all from superior merit. There is but a single variety of European cheese that I know of, that would satisfy the taste of the general public, as well as the one we generally make, and that is the Switzkase, or Gruyere. There is probably not another kind of cheese made on the globe which has been so widely distributed or given so general satisfaction, or which has an older record. It is not only palatable, but is easily digested and healthful, and one of the most durable kind. It is superior to the American Cheddar, as a long keeper, and its equal in most other respects, yet it is not safe to manufacture much of that kind of cheese beyond a known market for it, so tenaciously do people cling to what they have been educated to use. The Gruyere is steadily increasing, and in the future will become a staple cheese on this side of the Atlantic. For the present there is nothing which will so much extend the consumption of American cheese at home and abroad as to improve the average of the American Cheddar, to make all as good as the best.

### The Farm.

#### New Spring Wheat.

As spring wheat will be in greater demand than usual this year, new varieties are required and new changes are sought for, we have made enquiries to ascertain what is likely to prove beneficial. The old Scotch or Fife wheat produced very well in most sections during the past year, still, our enterprising seedsmen are making every enquiry and sparing no pains to procure anything that may prove of value. It is with pleasure we announce the results of two apparent successes. One is the Hobarto wheat, entered in Pearce & Weld's catalogue as a new wheat, brought into Canada a few years ago from the South Sea Islands. We have seen the grains. They are really very fine. It has thriven remarkably well, and promises to be of value. The other is called the Max wheat. A large number of varieties were procured by Mr. Simmers, of Toronto, and have been tested for some years. Many were found of no value, but this wheat which they term the Max wheat, is succeeding well. The grain has a fine appearance. We purchased all they would sell as soon as we saw it and heard their description of it. They will not dispose of any more this year. Both of these wheats have a bald head; one is a little longer, and one of the samples is much whiter than the other. The account of both are most encouraging. The only way we intend disposing of this wheat is to send a small package of each to those who send us \$1, accompanied with the name of one new subscriber. We will dispose of it on no other terms. Fuller descriptions may be expected as soon as these varieties are fairly in the market.

#### Effect of Frost on Wheat.

A valuable essay by Prof. John Hamilton, of the Pennsylvania State College, entitled, "How to Raise Wheat," has recently been published. Prof. Hamilton has evidently studied the subject of wheat-raising thoroughly, and in the paper before us gives the results of his investigations thereon which include a number of experiments on the experimental farm at the State College. The proper depth to sow is fully considered. It has often been said in our columns that, as a rule, wheat is sown too deep. In advocating shallow sowing Prof. Hamilton states as one important fact bearing on the subject that wheat sown shallow does not winter-kill as readily as that sown deep, and adds:

"An examination of the accompanying figures will illustrate this. The figures show the wheat plant in its early stages of growth. Figure 1 is a young wheat plant planted deep. Figure 2 is a wheat planted shallow. Figure 3 is a wheat plant broken by the frost.

"The wheat plant has two sets of roots, the first set of which starts out from the seed and penetrates the soil in all directions, providing nourishment for the new plant. The plant during germination grows toward the surface of the ground, sending up a single stem or tube, and at about one-half inch below the surface the stem swells out into a small bulb. A peculiarity of this plant is that no matter whether the seed be deep or shallow this bulb is always found near the surface, except where the wheat is sown entirely on top without covering, when it forms above the ground.



THE HOBARTO WHEAT.

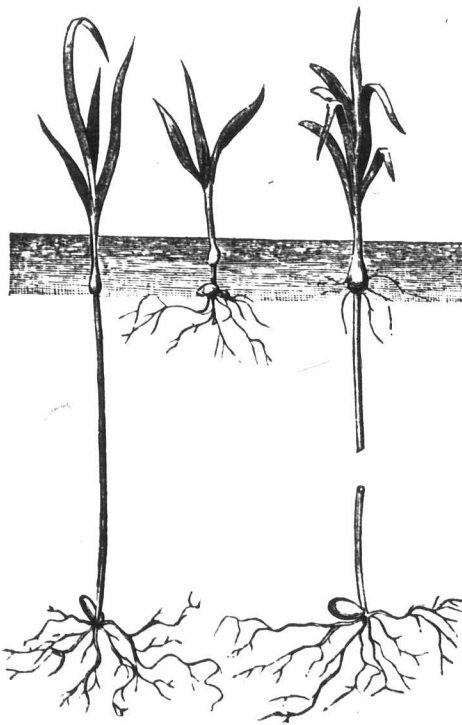


Fig. 1. Fig. 2. Fig. 3.  
Effects of Frost on Wheat.

"From this bulb there starts out a second set of roots, drawing nourishment from the surface soil. The roots of this second set are not fully developed in the fall of the year, but the plant lives chiefly upon the lower set during the winter, and in the meantime the second set are pushing out and getting into condition for nourishing the plant in the spring, and during the formation of the seed. This habit of the wheat plant is important, as explaining a fact that is not generally understood. Farmers, for instance, frequently complain that their wheat looked thrifty in the fall, and also sometimes in the early spring but that it then began to die in the drill rows, until they could go along the row and gather out, by small handfuls, the dead grain, pulling it out by the roots.

"The explanation is, that where wheat is sown deep, as in Figure 1, the first set of roots are formed in the fall deep in the soil, while the second set are immature until late in the spring. The ground during the winter or early spring freezes on the surface, and the frozen earth claps the wheat plant near the surface of the ground and expanding upward breaks the connecting tube that unites the upper part of the plant with the roots, as in Figure 3. The consequence is, that the plant, now with a long top and great evaporation surface, is cut off from its supply of food, the upper part of roots being as yet imperfectly formed are unable to sustain the drain of the luxuriant top, and the plant starves to death. If the grain had been sown near the surface the first roots and the second would be near together, as in Figure 2, forming a mat or sod upon or near the surface, so that when the ground freezes or thaws both sets of roots would be lifted and settled together, like a timothy sod, and the connecting tube between the upper and lower sets of roots would not be broken, and the plant would start off in the spring with two full sets of roots. It is often well to observe nature and see how plants were intended by nature to propagate themselves. She never plants seeds deep, always shallow. The true principle of seed-sowing is never to bury seeds deeper than is indispensable to the preservation of dampness around them, and to protect them from insects and birds."

#### Large or Small Red Clover.

At a farmer's club recently the following discussion was reported:—

"Which is better to plant for general purposes, the large or small red clover?"

Mr. McGregor remarked—Though his experience with the two is not extensive, he prefers the common red clover to the large or English. He thinks, for hay or pasture or seed the common is to be preferred. As a fertilizer he cannot say that the large is any better. He has found a disadvantage in it, as it accumulates in bunches so thick that when dry and wily it is almost impossible to get a cutter to cut through it. When dry it is wiry and tough to cut. He can see no better results where it was turned under, beside that of the common red. He prefers the latter.

The big clover does not seed the ground, as with the common.

Mr. Lintner said—Sow both, mixed, as the bloom is more continuous, and the stock thrives more on the bloom than the leaf and stalk.

### A Good Time to Spread Manure.

BY S. D. G.

To those who have never tried the experiment it may seem unreasonable to haul or spread manure in winter; but, where there are not heavy snow-drifts or a danger of much spring washing of the surface, manure may be spread on the snow with more advantage than at any other time or manner, except in the drill under a root crop. But the present has the advantage of being a comparatively leisure season, while in spring every hour should be made to count two; besides the uncertainty of having a short season, or ground in poor order to drive over without compacting it, will be avoided in winter. Nothing will now be lost by evaporation, since the snow will prevent any waste in that way. Except on very light, sandy land, or where there is much danger of spring washing, we would prefer to put the manure on the land intended for roots on the snow. In top dressing orchards and old meadows the manure will tell doubly under the snow as in any other time. A few loads of scraping off the barn-yard, though it may seem little better than dark-colored clay, spread evenly over an orchard on the snow, will call for props and ropes before the fruit gets ripe; and on a meadow will cause the hay to be turned twice before it will be fit to haul in. Where it is intended to break a piece of poor sod for roots in the spring, this is the best time to put on a good even top dressing, when the thaws of spring will carry all the soluble portion into the surface soil, exactly into position in the sod in spring to feed young roots of carrots or mangolds, and the coarser part by plowing be placed in proper place to assist the rapid fermentation of the sod without any possibility of waste by drying during the early part of the summer. There may be several fine days before spring which can be turned to advantage in this way to lighten the work of spring, which is likely to be overcrowded by the unfavorable season and late harvest of last year, which left fall work very backward.

The past season has taught us a lesson in the preparation of land for roots, and that we must divide the field so as give greater breadth to carrots, which, if sown early, are a very sure crop; but to do this pre-supposes the manure to be on the ground before spring seeding begins. Where the manure has not been fermented and worked in in the fall, our plan will suit well, since any small weed seeds that may happen to be in manure will be put down so low as to smother and give no trouble in the part of the season, and will be completely under the control of the scuffler and shade of the tops later in the season.

Coal ashes have been found much more valuable as a fertilizer than their chemical analysis indicates. They are especially helpful as a mulch to apple orchards, keeping the soil moist and loose in times of drought.

Dust is a great obstacle to successful window gardening. Ivies and all other smooth leaved plants may be kept clean by washing the leaves with a soft sponge or cloth. Plants with downy leaves should be set in a bath tub or sink, and freely showered by water from a pot with a fine rose, held high above them. When the room is swept, the plants should be covered with a thin cloth, or with newspapers, kept from resting on them, these are to remain over them until the dust settles.

### 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. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave one end open and postage will be on your side per 1/4 ounce.

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

#### Sheep Rot and What Is It.

SIR,—In the last issue of the ADVOCATE I noticed an article from which one would gather that the Model Farm is, or likely to become, the seat of a most destructive disease. May I be allowed to express my experience of the rot? The presence of the fluke worm is the only certain guide to the disease, supposed to be taken up in the eggs of insects or the eating of a certain plant. Be this as it may, I have never known it to appear but on wet lands, and after a very rainy season, and on certain water-flooded meadows. Romney and Pevensey marshes, south of London, England, were notorious for the rot in sheep, as also were other districts; also all bed lands below a certain level, north of South Downs. It used to be considered safe to pasture such lands in the winter during very hard frost. About the year 1830 I turned 240 ewes for a few days on such pasture, yarded or folded at night. The next season (fall) all the flocks suffered as to almost annihilate the said flocks, as also my own, the only remedy being the knife for such as were not too far gone. About that time the South and West of England Agricultural Society employed a physician to examine into the nature, cause and remedy of the disease. Could I have placed my hand on it I would have sent it. London's encyclopaedia of agricultural books has information on it: "Bakerville, when his sheep were past service, used to rot them purposely, that they would not pass into other hands; this he did readily by overflowing his pastures."—Sec. 7, 232 and the following sections of Book 6. Since that time I have grazed a fair amount of sheep occasionally, having some affected with rot, as is stated in the book alluded to. There are stages of the disease when they will thrive equally as well as sound sheep, by the use of linseed cake, grain and roots; in fact, forcing them for the butcher. The first symptoms noticeable to those acquainted with sheep is a dullness about the eye; placing the thumb on the lower corner of the eyelash, it shows a paleness and absence of blood as in healthy sheep; also larger jaws. Would have written more, but not being equal to the task from ill-health. Trusting this will lead any who have flocks not to be needlessly alarmed in these days of excitement, I am, yours faithfully,

A SOUTHDOWN SHEPHERD.

#### The Model Farm and Sheep Rot.

SIR,—I was quite surprised when I read Professor Greenside's letter in the Mail of the 17th inst. to find that he had so openly confessed that there had been a fatal disease among the sheep at the Agricultural College during the past summer. For Professor Brown, of the college, and his friends had made strong efforts to impress upon the minds of the public that there had been no disease among the sheep at the Model Farm. At the annual sale of live stock at the Agricultural College at Guelph there was a report put in circulation that the sheep were affected with tape worm, which Professor Brown speedily contradicted; and one of Professor Brown's special friends published the contradiction, and said that "it was very unfair for such reports to be started by the parties who first circulated it"—meaning the FARMER'S ADVOCATE. In describing the symptoms of the disease that killed so many lambs, Prof. Greenside gives a very particular description of the "sheep rot," which still stronger impresses upon my mind that the lambs died with the sheep rot; and it is also the impression of an old English shepherd here, who has had a good deal of experience with this disease, both in this country and in England. Professor Greenside says the intestines and stomach were inflamed, and also that the brain was affected. The sheep rot is caused by two kinds of very minute parasites. One kind is a small thread-like worm which infests the intestines, stomach, lungs, bronchial tubes and brain. The other, which is found sometimes (but not a ways) with the first-named, is what is called the liver fluke, and is a leached-shaped worm,

which infests the liver, gall, bladder and the biliary ducts. This, Prof. Greenside says, is not found on this continent but I have seen it at different times for over twenty years. The first that came under my notice was in 1854. A farmer's flock was taken sick, and were dying at the rate of four or five a day. The farmer had at that time an emigrant girl, the daughter of a shepherd, working for him. She saw the sheep and knew what was the matter, and gave a remedy which checked the disease in side of twenty-four hours. Since that time I have met with it several times, and different times have had English sheeps men help me to examine the sheep that have died with the rot. Sometimes they would be more affected in some parts than others. When affected with the rot they will not show any signs of sickness only for a few hours before death, and will act just as described by Prof. Greenside in his letter. Sheep with strong constitutions can be infested by a great number of these parasites without showing any signs of sickness, but they will not thrive and do well. Now, these are facts that I can find proof for by several good English sheeps men; also I have reports from reliable sources in New York State; also Dr. Noah Cressy, of Middletown, Conn., in his second annual report to the Board of Agriculture of that State, describes in a similar manner cases which have come under his notice. Prof. Greenside says that the tape worm is not much known, but he had better look around some before he is too positive; for I have and can produce good farmers who have had it in their flocks at different times for many years, but have never considered it very dangerous, and could soon get clear of it. There are different remedies for it; I have used chimney-soot with good effect.

#### A MODEL WAY OF KEEPING SHEEP.

Prof. Greenside says on the shepherd going to the field one morning he found seven or eight of the lambs dead, and in forty-eight hours' time as many more were found dead and a like number showing signs of dying, and during the next two weeks several more died. Then, as soon as circumstances would permit, we directed our attention towards taking means for a remedy for the sick lambs that had been out in the cold rains for about three weeks. This certainly is a model way of keeping sheep. The farmers in Ontario ought to note this, if they do not practice it.

#### EGGS ON THE GRASS.

The parasites that infest the intestines, stomach and lungs come from eggs taken into the stomach by the sheep when eating the grass (the same as the eggs of the bots are taken into the stomach of the horse). These eggs are deposited on the grass, where, in moist places, they remain for a long period, and possess great tenacity of life.

Yours, etc.,  
OXFORD FARMER.

SIR,—I have a flock of thirty sheep and some of them are always scratching and pulling out the wool in large patches. I have not lost any so far, but they are growing worse, and nearly all are affected more or less. 1st—Could you or any of your subscribers tell me what is the trouble, and suggest a cure? 2nd—What are the symptoms of the tape worm?  
A. MCT.

Montreal, Jan. 27, 1884.

[Your sheep are troubled with skin disease. Feed plenty of sulphur and roots.]

The annual report of the Ameliasburgh Township Agricultural Society for the year 1883 show receipts of \$854, and paid in prizes, FARMER'S ADVOCATE and expenses \$733, leaving a balance on hand of \$71. Its members for 1883 numbered 176, which was greatly due to the fact that each member received the FARMER'S ADVOCATE free. The society has entered on its work for 1884 with a good staff of officers, who are willing and determined not to let the old Ameliasburgh Agricultural Society lag in its work; as, by an unanimous vote at its annual meeting, it was decided to take the FARMER'S ADVOCATE for each of its members for 1884. The following are the officers for the ensuing year:—Jacob R. Wood, President; Wm. E. Delong, Vice-President; Edward Roblin, Secretary and Treasurer; H. Wellbanks, S. B. Russell, R. H. Rass, Geo. H. Sprung, John A. Howell, Wm. Delong, John Nightingale, C. Osborne, Wm. Hatch, Directors; and the retiring President, S. G. Wag, was recommended to the County Society as a Director in that Their Fall Show will be held on the second Saturday in October.

E. R.

Ameliasburgh, Jan. 16, 1884.

SIR,—Would you kindly answer the following questions:—1. Would gypsum (plaster) applied to tomato vines while growing, cause them to ripen any sooner than without it; also, would superphosphate mixed with the soil about the roots, cause them to ripen sooner and grow larger than without it, and would an application of both be beneficial? My object is early ripening and large size for early market. 2. Would superphosphate cause early potatoes to get their growth sooner than without it, if put in the drills under the potatoes, and would it be advisable to cover the superphosphate with a little earth before dropping the potatoes? 3. I have about a ton of hen manure. How can I make it in a suitable condition to apply to potatoes. I can buy plenty of unleached wood ashes; I have gypsum (land plaster); would the three together be a good mixture, and if so in what proportions ought they to be mixed, and how ought they to be applied? I understand road dust is good to mix with them, but I could not get it in time for spring planting. 4. Would it be a good idea to manure wheat stubble for next summer, and plow and sow buckwheat and plow under when in bloom in fall, for potatoes the following spring? By answering the above you will oblige

AN OLD SUBSCRIBER.

Wallaceburg, Dec. 27, 1884.

[Sulphate of lime (plaster) through its manurial agency—absorbing ammonia—would certainly hasten maturity in your tomato vines. The same would apply to superphosphates, if your soil requires those elements which are contained in a superphosphate of lime. However, it may be possible, if you do not understand the nature of your soil, that such applications might be injurious, and the plant grow too much to vine, not producing fruit. This is often the case. The tomato is a potash plant, and would be greatly benefited in case of organic vegetable soil or black muck, by an application of lime or ashes. On sandy or light soil excellent results would be brought about by superphosphates applied around the roots, and by the application of plaster in the early stages of the plant's growth. 2. The same argument would apply to potatoes with regard to growth of vines; for both are of the same order of plants—look to your soil. It is immaterial whether the superphosphate is put in the drills, or covered up or placed around the plant, for the mechanical and chemical action of water and the condition of the soil determine the supply of plant food which the superphosphate affords. You do not want to apply both to the same plant; or plaster used on potato vines does not give good results. 3. Mix your hen manure with about half its weight of black muck, and slightly sprinkle each layer as you mix with gypsum. You do not want any ashes. Road dust will do as an absorbent. 4. It would hardly be economy to manure your wheat stubble; plow under a green crop, and all this for the sake of growing one crop of potatoes.]

I have been unable to sell a single grain of any kind, and do not see as yet any prospect of doing so. Word came two weeks or so ago that we could sell our wheat for from 40 to 70 cents a bushel, according to extent of damage. The effect was to cause a rush of farmers to market with their grain, and the buyers bought the grain for a day or two. One of our neighbors, who has a large quantity, took out a load and succeeded in disposing of it for 45 cents a bushel. As our wheat, although sown about as soon as his, was not quite as good, we sent out a sample with him, and the buyers said they would give 40 cents per bushel for it. Well, we cleaned up two loads, running it through the fanner twice, which made it fully better than the sample shown. As we have only oxen, it of course took us all day to travel the 23 miles to Manitoba City, where we arrived at sundown. Imagine our dismay when the buyer came, took a hasty look at it, and said he would not take it at all. What made us feel worse about it was the fact that the same buyer had bought far worse wheat than ours for 40 cents. Afterwards, our neighbor who had got 45 cents, took out two loads of exactly the same wheat he had taken before, and they would only take one load at 40 cents. There have been scores sent home with their grain or leave it piled up around the town. Such is the way we farmers of Southern Manitoba (the garden of the Province) are treated. We may say there is, practically, no market for oats, wheat or barley, and pork and beef are cheap. So you will at once perceive we are in a sad plight; with accounts pouring in, accounts which were contracted for the most stern necessities of life, and for which we have not a cent to pay. It is not one case, but represents nearly every farmer in the Province. Is it a wonder the people are talking rebellion? There has been a deputation, as you are no doubt aware, sent to Ottawa to present our grievances, but I expect the answer will be,—“We will consider your grievance,” or to that effect, and that will be all the satisfaction they will give. But enough.

R. J. P.

Pilot Mound, Man.

DEAR SIR,—I would like to give the readers of your valuable paper a little news about this part of the Northwest Territories. I have had some experience in this country, and would like to give intending settlers some advice on coming here, now that the mile belt and also the land in the Moose Mountain District will be open for homesteading after the 1st of January, 1884. This has been a great draw-back to this part by being thrown out of the market, thus causing a great many first class settlers to cross the line to Dakota. As you must know, Mr. Editor, a few settlers scattered over a large tract of country cannot have churches, schools, grist-mills, &c. This cannot be done without people coming into a new country. I would like to get it as thickly settled as possible, for the above-mentioned reasons. There are three companies that have syndicate land in this part of the country, and I consider that these companies are only a curse to the locality they are in. For instance, one of these companies has all the syndicate land in a township, and only cultivate one section, and there are no families living on it. This leaves half of the township, including the school lands, vacant. I would have nothing to say about these companies if they were settled on solid blocks of land by themselves; but to make them up with the settlers is a real draw-back to the country and a discouragement to the people. But I am glad to say that the most of such companies are getting tired of their land and want to sell it, as they cannot comply with the rules of the syndicate, now that the Government land is coming into market. There will be the best chance for whoever is lucky enough to get them, that there ever has been in the country, as a settler can buy grain and hay for one-third what he had to pay for the same articles two years ago. This land that I speak of is situated east, west and south of Moosomin, a fine town on the C. P. R., and is some of the best land in the county, with four general stores, one dry-goods and grocery store, four hotels, three boarding houses, two bakeries, two blacksmith shops, three lumber yards, one door and sash factory, one stove and tin-shop, one harness shop, one church, and three more are to be built next spring.

T. B.

Moosomin, C. P. R., N. W. T., Dec. 13th, 1883.

SIR,—I have a mare heavy with foal. She stocks in the legs. What is the best and safest remedy to prevent it? By answering, you will oblige, A SUBSCRIBER.

Give about a pint of raw linseed oil as a drink; then give every night about one drachm of nitrate potash and two drachms of sulphur, in bran mash. Give her plenty of exercise or light work every day.]

SIR,—Please to answer the following questions through ADVOCATE.—1. What are the best points in Black Spanish cockerels? 2. Is the grit on the comb a blemish? 3. What are the best marks in the hen or pullet? 4. What are the best points in the white Leghorn cockerels and hens? 5. What is the best fertilizer, besides stable manure, for celery? My soil is black muck. I have taken second prize at one fall exhibition, and used no manure or any other fertilizer.

J. C.

Palmerston, Jan. 3, 1884.

[Black Spanish cocks and cockerels should have metallic-black plumage, legs the same, comb erect, no side sprigs; pure white ear-lobes, and face, the latter not puffy. The pullet, in plumage and legs, should be the same, with pure white ear-lobes and face; the latter should be small and neat; large comb and falling over well to the back. White Leghorns should be pure in plumage, no bronze feathers on neck or saddle hackles, yellow legs for both sexes; cockerel having pure white or creamy ear-lobes, no red; comb smooth and erect, having five serrations deeply cut; erect carriage, tail low, not up on back or squirrel-tailed; pullet same as cockerel, in plumage and ear-lobe, with large comb, falling over, well back. There is no better fertilizer for celery than well-rotted stable manure. We opine your black muck, being rich in organic matter, will grow good celery without manure. But try it.]

SIR,—I wish to get some information as to the best mode of dealing with a clay farm, as I have purchased a farm of 200 acres, with one-half pretty badly run over with fire.

Pannure P. O.

[The first step in managing a clay farm is thorough drainage, cultivation, and plenty of barn-yard manure.]

SIR,—I would like to see a few words from you or some of your correspondents, about changing seed, as I believe that seed grown here, if properly ripened, is just as good for this climate as seed brought from a distance.

Corinth, Ont.

H. B.

SIR,—I was amazed and grieved on reading your article in January number, on the “Fat Stock Shows,” to find the statement made, and the impression conveyed, that these exhibitions were under the control of those interested in Short-Horn cattle, and were used to favor that breed. I suppose you were led to that conclusion by the fact that none but Short-Horns and their grades put in an appearance at the shows, but if you had examined the prize lists you would have found that the word *Short-Horn* or *Durham*, was not used in them (except in the case of the special prize offered by the Short-Horn Association.) At the Toronto Fat Stock Show there were two classes; 1st, for “Thoroughbred Cattle of any breed,” 2nd, for “Grades and crosses of any breed.” There were also sweepstake prizes for the best steer, and for the best female, without reference to breeds. Now, in the name of common sense, where is the ground for the charge that Short-Horns were favored, and of the enquiry of a correspondent “Why were the Ayrshires barred out?” Who barred them out? No one but their own owners and friends, by keeping them at home, when they had a fair field with no favor shown to any. I trust I am not so prejudiced that I cannot see and admit good qualities in the different breeds of cattle, but I am a lover of fair play, and I am sure you claim to be, and I want to say that, if after 25 years' trial in this country the owners of rival breeds of beef cattle are unable to produce representatives that would figure creditably in a fat stock show, either in the class for thoroughbreds or their grades, let the blame rest upon their own shoulders, and let the public draw their own inferences. Had it not been for the breeders of Short-Horns, what sort of fat stock shows would we have? Plainly, they would have been a complete failure instead of the grand success they have been. And where would have been our export trade in beef cattle, which has brought millions of dollars into our country, but for the improvement made in our cattle by crossing with Short-Horns, for it is a well-known fact that our shipping cattle are almost entirely made up of Grade Short-Horns. Would it not be better to give words of praise and commendation to those who have done so well for the shows and for the country, and not scold those who come to meeting because others, who ought to be there, have stayed away? I would suggest that a lecture, through your paper, addressed to the delinquents, would be more appropriate, and that those who seek to gain sympathy by talking about invisible “bars” be advised to “put up or shut up.”

J. C. S.

Edmonton, Ont.

SIR,—I have taken your paper now for several years, and I am well pleased with it. I think several more around here would have taken it had crops been good, but they were nearly a failure. Fall wheat did not yield over five bushels per acre, and poor at that. Spring wheat was good but very little sown. The root crop, also, was very poor. Wheat did not make much growth in the fall, but it is well covered with snow now, and the roads running north and south are completely full where there is no wire fence, but where there are wire fences it all right. Some are going to fix wire fences on their places on the west side of the road, next spring, but there are some others who would rather see the road blocked up all winter. Is there any law to compel such parties to fix their fences, or keep the road broken?

LOVER OF FAIR PLAY.

Clinton, Jan. 9th, 1884

[There is no law to compel parties to build any kind of a fence, much more to prevent snow drifts, but certainly, for the public weal, both private individuals and also Township Councils should see the benefit of having wire fences on roads running north and south. The path-masters have power to shovel out blocked roads and charge the same to statute labor.]

SIR,—Will some of your readers give some advice before spring comes round on putting up wire fences, as I have put in a number of posts 32 feet apart, with two feet of stone in the bottom? As I am not sure that it will answer the purpose, I would like some information if I can get it before putting on the wire. It is enclosing a lane leading to back of farm.

W. R.

Bayview P. O., Dec. 26, 1883.

SIR,—Will you please inform me through the columns of the ADVOCATE, about the cultivation of Alfalfa or Lucerne; the best kind of soil; whether to be sown with grain or by itself; the number of pounds to the bushel, and how many times it can be cut, and oblige

A SUBSCRIBER.

Hollin, Jan. 18, 1884

[For the best results in sowing Lucerne, you want a rich soil, and to be sown separately; from ten to twelve pounds to the acre is sufficient. You can cut four crop if sown early.]

Farm Accounts.

Sir,—The "Farmer's Hand Book" was received in due course. Am greatly pleased with its appearance and contents, together with the plan or system adopted for keeping trace of all business connected with the farm. I believe it will, when once adopted by the fraternity, supply a want long felt. The trouble with farmers is their great distaste for book-keeping. We so detest accounts. But then they are as essential to the agriculturist as to the merchant. Why, then, should they be so overlooked? This is largely owing to the fact that we, as a rule, use our muscles to excess, while our brains are but secondarily called upon in the pursuit of our professions. While the fact is that, were we to use more of what is termed head work, and labor fewer hours, we would get along much better and enjoy more of the blessings of life. As a rule, farmers are too slow in changing from one system to another, or, in other words, in turning over a new leaf. E. J. Y. Wardsville.

Telegraph Companies.

Sir,—To your remarks upon the Telegraph and Telephone Companies' employees vs. the shade trees, we have seen them play havoc with the neighbors' trees. But I will relate my mode of dealing with them. Most people assume that these tree sacrificers have a governmental license to do as they please, but we have made up our minds otherwise. The trees are private property, which, along the highway, assume a public character; also, consequently, in them centre both vested rights and much interest. We take the position that the trees must not be unreasonably mutilated. This the workmen will at once concede, providing the proprietor appears to be a man of firmness and pluck. This granted, the next question that arises will be, What is reasonable in the case? Here the proprietor has the advantage, if he will only hold it. We tell them we have no objection to the wires going up, but the trees must not be unnecessarily mutilated. And then we decide what is necessary. If the workmen dispute, we insist upon our rights being granted; if not, then the work must stop forthwith. By this means we have succeeded in saving our trees in every instance except a few that were slashed before we arrived on the scene. And we know of men who made them move the poles, and avoid the trees in that way. The farmer must insist upon having his rights, no matter what the legislative enactment may be. This is the only remedy in our reach; to stand by our rights, and having done all, "to stand." Wardsville. EVERGREEN.

Sir,—I am a great advocate of plowing under a green crop for manure. I have tried rye, sowed in the fall, plowed down in the spring; then sowed buckwheat, and never knew it to fail of good results. I saw in the ADVOCATE an advertisement of the cow pea. Do you know anything personally about them? If you could give any information as to where they could be got, and what price, and how much to the acre, you would oblige an old subscriber. Plainville, Jan. 4, 1884.

[The cow pea is not a pea, but more properly belongs to the bean family. For the improvement of the soil the cow pea is to the Southern States what clover is to the Northern States, and not affected by clover insects. It is becoming known in the north also as a highly valuable fodder and fertilizing crop. At the New York Agricultural Experimental Farm the cow pea has proved itself to be equal to its reputation. It could probably be grown as a second crop after wheat with us. If desired, the pods may be harvested for the grain and the plants plowed under to fertilize the soil. The seed or grain is ground and used for cattle fodder; the stalks and leaves also make excellent fodder fed green. It is highly recommended by those who have tried it for ensilage, mixed in the silo with green corn stalks; for this purpose the entire plant is used. Poor, sandy soil may be greatly improved by plowing under a crop of cow peas, and thus made into a fertile loam. Plant in a thoroughly pulverized soil. If wanted to plow under for manure sow with a grain drill, in drills a foot apart. If grown for fodder or seed, plant three and a half feet apart, and cultivate thoroughly. The seed must not be sown until the soil has become thoroughly warm.]

Sir,—Could you tell me, please, in the next number of the FARMER'S ADVOCATE, a profitable way to burn plaster, and oblige a new subscriber. T. H. W. [Why does our correspondent want to burn plaster? for it is already burned.]

Sir,—We often see in your columns descriptions of crops, &c., written by farmers, which give us a vague idea of what they are intended to represent. For instance, one writes that he raised forty-seven bushels of wheat to the acre, with 100 lbs. of phosphate; another, that he raised a good crop of turnips, with seven loads of stable manure and a dressing of phosphate. Now, we are not told at what state of cultivation the ground was in before the manure or phosphate was applied. I think there should be some basis to work from. Now if we know how much hay this land produced the previous year, or (had it been in other crop) how much hay would it produce were it in hay in its present state, we might form some idea of the value of the phosphate or manure. The usual plan in this section is to plow land as fast as the yield of hay gets light, (hay is the main thing here), manure it, and if sown to grain, seed down on the sod, especially if sown to wheat; if a whole crop, two crops are taken, and the land left sufficiently good to give two tons of hay at one cutting. My question is this:—I have a piece of land which I wish to put in turnips next season. It gave me one ton of hay per acre last season, plowed in fall; dry, good soil; will be well tilled in spring. How much stable manure and how much and what kind of phosphate will it take per acre to give a good crop, other things being equal; and how should each be applied? Would it pay to apply phosphate to corn? Should it be put with the manure in the hill, or be put on at the first hoeing, and how much per acre? Corn is usually a good crop here. We raised last season 145 bushels of ears on one acre and five rods. Would you give a list of the different farm crops and the kind of phosphate to apply to each? Shefford Co., P. Q. YOUNG FARMER.

[To answer our correspondent fully would take a whole chapter on manures and their application, and likewise, the cultivation of the soil. For turnip land, and to produce the best results, we strongly recommend preparing the land and manuring the summer or fall previous. No definite rule can be given as to the quantity of manure you require; it will depend upon the state of your land, and also the quality of your manure. But as a rule, for turnips apply from ten to twelve loads of well-rotted dung to the acre, worked well in with the soil; get it incorporated, so that the elements of plant food may be available. With regard to phosphates (super-phosphates) there are of two kinds, animal and mineral (apatite). We recommend the former. Two hundred and fifty pounds to the acre, applied at the time of sowing your turnips, will produce good results. The ordinary turnip drill has a fertilizer attachment. Put the superphosphate around the hill when the corn is nicely ripe—not on the plant.]

Sir,—I would like to know in your next paper which is the best way to feed steers for beef in April. I gave plenty of hay, oats, barley, potatoes, turnips and flax seed. I would like to get the best system of feed, as I am a young beginner. Will our flour mills grind flax seed? If not, will it do to feed whole in smashed grain? A. W. [1. See answer to J. McL., Camlachie, in this issue. 2. It would not pay a flour mill to grind flax. It may be fed whole with other grains to stock, but sparingly.]

Sir,—Could you or any of your correspondents answer the following questions: 1. What is the cause of apple trees splitting in the bark near the ground? 2. What remedy when split? 3. What will prevent them from splitting? J. L. [The main causes are an excessive flow of sap, and a hard frost, combined with a tender variety. There is no remedy.]

Sir,—I see by the January number of the ADVOCATE you strongly urge to have clover seed sown in early spring, or on the snow. I have tried sowing the seed on snow about the last fall of snow in spring, and have had no success. On our clay soil I wait until the ground is sufficiently dry in spring to harrow, then sow the seed on the fall wheat ground, and follow with a good harrow, and give the wheat a good harrowing, which greatly helps the wheat, and we generally have a good catch of clover. Kent, Ont. O. R. L.

Sir,—I have a pear tree that blooms every spring, and the fruit falls off after forming. It is growing well and looks quite healthy. If you can give me any information as to the same you will oblige. A. SUBSCRIBER. King's County, P. E. I. [Mulch your tree and apply unleached ashes about the roots.]

Sir,—I purpose planting eight or ten acres in fruit, about two miles north of Lake Ontario, in the township of York. Will you kindly give me the benefit of your experience and advice. 1. As to the best place to procure my trees, apples, plum, pear, grapevines, etc.? 2. The most economical and speedy way of enriching the soil, a sandy loam? 3. Whether I can plant trees (say poplars) for shelter, and use them as posts for a barb-wire fence on the east front? By answering the above queries, and giving me such other advice as you think will benefit me in your next issue you will much oblige. Toronto. ENQUIRER.

[1. See our advertising columns. 2. Plowing under green crops or plenty of barn-yard manure. 3. Yes, and an economical plan.]

Sir,—1. Under the most favorable circumstances which animal makes the best return for food consumed in fattening cows, steers, sheep or pigs. 2. Have we sufficient proof that raw peas are cheaper than cooked for hog feeding? 3. I find potato raising more profitable than average of wheat. If I use lime and plaster on a clover sod and summer fallowed, which of all the artificial manures will best take the place of barn-yard manures? 4. If I buy steers or sheep in the fall, buy hay and grain at reasonable rates, fatten all winter, and sell in the spring with all care and discretion, can I expect to get the manure for nothing? 5. What is the breed of sheep or pigs which, when fattened, produce the largest proportion of fat, and vice versa? 6. Is there any difference between the Prince Albert Suffolk and small Yorkshire? Harris, in his book on the pig, says Prince Albert Suffolk is but another name for small Yorkshire. SUBSCRIBER. Huron County.

[1. The relative quantities of food consumed by an animal for each hundred live weight, and the current prices, will guide our correspondent: Dozen cows, 2.42 lbs.; dozen steers, 2.84 lbs.; dozen sheep, 3.00 lbs.; dozen pigs, 3.00 lbs. 2. Doubtful. 3. Superphosphates. 4. Yes; and a good return besides. 5. There is a diversity of opinion on this point; location and climate would have considerable to do with it. 6. In a general sense Harris may be right, the same as asserting that the whole pigs have had a common ancestry; but in a particular sense he is wrong. Although all white they differ considerably in their build and general appearance, as they have been handled by different breeders, and are now looked upon as distinct breeds as much as Cotswolds, Leicesters and Lincoln are in long wool sheep.]

Sir,—I want to ask your opinion on rye grass. In Scotland, my native country, it is nearly all the kind grown. You might let me know how you think it would do in New Brunswick. A. B. Cornhill, Dec. 20, 1883.

[Rye grass can be raised to advantage in New Brunswick on properly-cultivated soil. It is best sown with other grasses as permanent pasture.]

Sir,—Will you kindly inform me through your paper if it is right to let a mare roll when she is in foal. I have one and she never is let out but she rolls. There was a neighbor in the other day and he said it was not right to let her roll. T. J. C. Collingwood, Jan. 7th, 1884. [There is no harm in your mare's rolling. Let nature take its course.]

Sir,—I am feeding two-year-old good grade Durham steers, each of which average off the grass 1,000 lbs. I can purchase food for them at the following prices: Good timothy at \$7; clover, \$8 per ton; oats, 32 cents; barley, 46 cents; peas, 70 cents, and corn, 70 cents per bushel. Give the relative feeding value of each of the above substances. J. McL. Camlachie, Ont., Jan. 19, 1884.

[One hundred pounds of good timothy is worth in feeding properties 200 lbs. of clover, 59 lbs of oats, 54 lbs of barley, 45 lbs of peas and 57 lbs of Indian corn. Our correspondent can draw his own conclusion from this which is the cheapest. But a mixture of grains produces the best results.]

Sir,—I have a piece of land known around here as brush; part of it is plow deep, part from two to three feet deep, and part down to the gravel, which is limestone gravel and earth mixed. The solid rock is not within from two to four feet from the surface at any place. The soil appears to be a clay loam. Years ago a fire run over it (in my father's time) and burned it off. My father says the wood was mostly cedar at that time. Now the wood is pine, spruce and cedar. There used to be considerable oak on it also, as indicated by the shells of large logs left to decay where they fell. The pasture used to be very good, mostly June grass, but a sort of weed has crowded it out, and now it is nothing. Could you tell me of any plan to bring this piece of land (perhaps 18 or 20 acres) into any profitable position, so that I can derive a profit after paying taxes. In some places it is wet; would open drains do to drain it? The land on both sides of it is very good, a though it is higher, the fire not being quite as much of it. By answering the above you will oblige a subscriber. Se by P. O. W. J. McK. [Thorough drainage is absolutely necessary. Open drains will do. Clean the land of weeds, give a thorough manuring and lay down to permanent pasture.]

Sir,—I think it likely that R. N. S., of Switzerville, mentioned in January No., feeds his calves in a deep, narrow manger. Last winter I fed eight calves in such a manger, and every one turned back the point of the horns. SUBSCRIBER.

[Several interesting communications are unavoidably crowded out of this issue, and will appear in our next.]

### The Household.

#### "Are" we Really Feeding our Children Aright.

BY A FAMILY DOCTOR.

It is pleasant not only for the editor himself, but for every member of his staff, to know that the magazine on which he labors from year's end to year's end is not only duly appreciated, but highly popular. That ours is so, thousands of kindly letters bear annual testimony. We know, and rejoice to know, that we bring happiness to many a far-distant home.

"To these wild northern climes that lie  
Where summer's day ne'er shuts its eye."

I am going to chat this month, if chat you choose to call it, on a subject which is of interest to many among us, but to mothers more particularly, and the subject was suggested to me in a letter from a friendly reader—viz., on the diet and feeding of children.

"There seems to be an idea," says my correspondent, who belongs to the upper middle class, "that a child cannot eat too much, and they are consequently encouraged to stuff all they can. Their appetites are forced by all kinds of dainties.

"Again, the amount of sweets bought for children cannot be good for them. Often I have seen children come to their meals which they are unable to eat, simply because they have already partaken so largely of buns, tarts and sweetmeats."

Plain, straightforward, and sensible remarks are these, as every thinking man or woman will admit.

A child needs, comparatively speaking, a large supply of food, because not only has he, like his elders, waste to repair, but bones to build and flesh to form. Every parent knows this, but the very fact of its being so hard to convince a father or mother that it is what a child digests easily that tends to make a man of him, and not the amount he swallows, forms the rock on which so many childish lives are shipwrecked, and causes the annual bill of infantile mortality to be such a sadly heavy one.

Children need but little encouragement to gormandise, especially when dainties are pressed upon them; the sin of doing so is not theirs, it lies at the door of those who feed them, and they often err from sheer ignorance, but more often through pure selfishness, for they seem unable to resist the pleasure of seeing their little ones apparently enjoying themselves.

We do not have to travel far at any time to find illustrations from the life of how children are stuffed, both at table and between meals. Go where we will, on ships at sea, on trains by land, wherever little ones are to be found—and where are they not?—the same thing goes on, a constant forcing to eat on the part of those in charge of them, and a perpetually willing compliance on the part of the poor innocents themselves.

Now, of all the complaints to which childhood is liable, that called dyspepsia, or indigestion, is the most carefully to be guarded against. Over-eating and injudicious feeding are the primary causes of the complaint, but the loss of appetite, or the capricious appetite

which is one of its first symptoms, is usually put down to something else. The child is said to be ailing or delicate in constitution, plain food is supposed to be unsuited to him, so he is plied with dainties, and allowed to consume whatever he takes a fancy to, often in quantities out of all proportion to the needs of nature. The case becomes worse of course. Probably a change of air is thought requisite. Seaside residence, or a bracing atmosphere, certainly mends matters for a time, if increasing the appetite can be so termed. However, it pleases the parents to see what they think improvement in any shape, and feeling convinced in their own minds that there cannot be anything radically wrong so long as the child may even be rotund, plump it cannot be called, for the fat beneath the skin is of the flabby kind, flabby and therefore unhealthy. He is just a trifle paler than children brought up on better principles. They look at this with parents' eyes, and perhaps even affect to despise the bronze hues of health. They forget that paleness means poverty of blood.

I wish I could induce such parents to endeavor seriously to answer these questions. Are we really feeding our children aright? May we not be acting with mistaken kindness, and sowing the seeds of disease in his constitution, or at all events rendering it practically impossible for him to possess that amount of health and happiness which alone fit boys or men to be useful members of society? Dyspeptic children are generally pampered, petted and spoiled, and often puling and peevish to a degree. Their very presence is often far from a blessing in a house; indeed, I can go truthfully further than this, and can say without fear of contradiction, that his home is often rendered miserable and distasteful to the husband and breadwinner, owing to the results of the mismanagement in dieting of his child or children.

But the peevishness of dyspeptic children, or rather I ought to say of the few among them that live to manhood, is sure to develop into moroseness and bad temper in after-life; thus from errors in diet in childhood arise results, both mental and physical, which we can only characterize as deplorable.

Permitting children to sit at the table with their elders, is the cause of a good deal of mischief and injury to their youthful digestions. A variety of dishes should never be permitted and any attempt at wastefulness should be checked at once. Economy and self denial can be taught at the children's table far more easily than at school.

The diet of children can hardly be too plain. If they require to be encouraged to eat by the administration of dainties, there must be something radically wrong somewhere. It is unlikely that that something is constitutional, more probably insufficient exercise is taken, or taken at wrong times, or the nursery is stuffy, or the bed-room badly ventilated, or the parents have forgotten that sunshine and fresh air are as necessary to the healthy life of a child as wholesome food itself is.

The want of cleanliness, or frequent use of the bath, is many times the cause of indifferent appetite in children. Without cleanliness of clothes and cleanliness of person you cannot have healthy children. Without this the young blood seems poisoned, the child has neither

buoyancy nor heart, appetite is depraved or absent, and he grows up as pale and poor as a sickly plant.

Injudicious clothing is another cause of dyspepsia. It is bad enough to encase the body which has attained its full development in a tight dress, but it is ruinous for a child to be clothed in tightly-fitting garments. Every organ of a child's body requires room to grow and expand; if it be in any way compressed, the circulation through it becomes lessened, and it is therefore sicklied and rendered weak.

Tightness, therefore, of any portion of a child's clothing ruins not only the organ directly underneath the constriction, but indirectly those at a distance from it, for no damming up of the circulation can be tolerated by nature. Tightness round the waist in children and young people is the cause of many cases of dyspepsia, and in a lesser degree so is tightness of the neckerchief, by retaining the blood in the brain. Have your children's clothing loose, then, if you would see them healthy and happy. See, too, that at night they sleep not on feather beds, and that though warmly, they are not heavily clothed.

Children should be fed with great regularity day by day. The parents having chosen the hours for dinner, breakfast, and tea, ought to see that the times are strictly adhered to.

Irregularity in meal-hours, and times of getting up in the morning and retiring to bed at night, is not only prejudicial to the present health of a child, but it teaches him habits which are greatly against his chances of success in after-life.

I need hardly speak here about the quality of the food that is placed before a child; against indigestible or too rich food, against sauces and spices of all kinds, including curries; against heavy foods of the pancake, dough, and dumpling kind, against unripe fruits, against too hot soup, against strong tea and coffee, or beer, or against over-much butcher's meat.

Pray, mothers, do not forget that an interval of rest should ensue between the meals you give your children, and do not ruin their young digestions by cramming them with cake, or buns, or sweets of any kind. To do so is worse than cruel, it is a sin, and a sin which you are but little likely to commit if you truly love them, and really wish to see them generate into strong and healthy men and women. Tarts and sweets and confectionery would be bad enough in all conscience for children, even if they were always pure and unadulterated. But they are not often positively poisonous. Feed on plain and wholesome food regularly from day to day, permitting no stuffing between meals, and not forgetting the benefits that accrue from frequent changes of diet, more especially as regards dinner. Do this, and your children will live to bless you; do otherwise, and expect to see them sickly, with veins and arteries possessing no resilience, with mucous membranes pale and flabby, pipes of lungs that the accident of a slight cold is sufficient to close, muscles of limbs so weak that exercise is a penance instead of a pleasure, and flesh so unwholesome that a pin's prick may cause a fester, and all this because the blood is impoverished through errors in diet.



### The Buck Jumper.

The inhabitants of Ontario are not much troubled or amused with this fault in horses, but the mustangs of the West and the horses in Australia occasionally learn this habit, that is, to jump in the air, arch their back, put down their heads, and thus by repeated jumps to dislodge the rider. It is great fun to get greenies on the prairies and put them on a buck jumper. In this picture you see the rider firm and determined, as if he is sure of his situation. But see! the crupper has broken; will he keep his seat, or fall? Will the horse give another jump?

### Pet Stock.

#### Rabbits.

##### FEEDING RABBITS.

Rabbits should be fed three times a day; and the principal thing to be attended to is, always to give a good deal more dry than succulent food. All weeds and the refuse of vegetation should be banished from their diet, except the roots and leaves of dandelion, sow-thistle, and hog-weed. The most nutritious foods are the tops of carrots and parsnips, cabbages, parsley, fine grass, clover, tares, coleworts, and the tops of the furze-plant, which should be cut up with their dry food. The grains proper for rabbits are oats, peas, wheat, or buckwheat; to these, as the best kind of dry food, may be added bran, dry clover, pea and bean straw. Rabbits, full grown, which have as much corn as they will eat, can never take much harm from an abundant supply of vegetable food. But young rabbits ought to be very carefully attended to in this respect; and a very little vegetable food is the most proper, and that should be of the best kind, or they will soon depart to that "bourne from which no rabbit e'er returns."

##### NEGLECT.

One of the most common faults of young rabbit-fanciers is, first to over-feed their pets, and afterward to neglect and half-starve them. Not only do thoughtless boys forget to feed the objects of their care, but too frequently suffer them to become diseased, for want of attention to cleanliness. This is a very cruel and wicked thing. Rabbits should have their hutches cleaned out every morning, and require many little attentions to provide for their comfort and health; and those who are not disposed to afford these, ought not to think of rabbit-keeping.

##### BREEDING.

The doe will commence breeding at the age of six months. You may know that she is going to have young ones by her biting the straw and hay about in her mouth, and her general restlessness. She should be supplied with plenty of warm, dry litter for her bed while breeding. It is not desirable that a doe

should have too many litters in the course of the year, or too many rabbits in each litter. Five or six litters in the year, and five or six rabbits in each litter, ought to be enough for any reasonable fancier.

##### DISEASES OF RABBITS.

No animal is less liable to disease than the rabbit, when carefully attended; but neglect and want of cleanliness, or improper food, produce in them many complaints, among the foremost of which is what is called "pot belly," and which is very common to young ones. It is generally occasioned by want of air and exercise, and the use of too large a quantity of green food. The remedy is dry food, and to let the rabbits run about in an open dry space every day; but the best of all remedies is a stroke behind the ears, as few pot-bellied rabbits ever come to any good.

### HUMOROUS.

It is not easy to realize that tobacco and potatoes were unknown to the civilized world before the discovery of America. How strange to think of Ireland without "praties," or of a German without his meershaum. Yet even some of our common articles of food are strange to those who live on the other side of the ocean.

An English lady, while visiting the United States, dined with some friends on whose table was a dish of green corn. Having been asked if she would take corn, she replied, "A small piece, if you please," and was surprised when a large ear was placed on her plate. Not daring to attack it, she quietly watched the other persons at the table while they ate. On writing home about the new vegetable she said,—

"Their manner of eating is something like playing on a flute."

Less poetical but much bolder was the Irishman on his first introduction to green corn at a Boston restaurant. Observing how those about him managed, he quickly followed their example. He found the vegetable very palatable, and when he had finished one ear he called the waiter, handed him his cob, saying,—

"Sure, an' I'll take some more banes on the stick, if you plaze."

A story is told of how an American lady, who had the honor of dining with the Czar of Russia, was mortified. During the dinner a basket of grapes was passed first to her. Beside the fruit lay a golden knife. She perceiving no use for the knife, transferred a bunch of the grapes to her own plate. What was her mortification on seeing that every other guest severed with the golden knife but a single grape from the luscious bunches!

It is sometimes undesirable to be "first served."

Somebody put a small mud-turtle, about the size of a silver dollar, in a bed at a New Jersey hotel, and the stranger who was assigned to that room, on preparing to retire, caught sight of it. He at once resumed his clothes, remarking: "I expected to have a pretty lively night of it, but if they're as big as that I don't propose to get in with 'em."

An evasive answer:—"Pat," said his reverence, "I shall be very busy this afternoon, and if any one calls I do not wish to be disturbed." "All right, sor, will I tell them you're not in?" "No, Pat; that would be a lie." "An' phwat'll I sa, yer riverence?" "O! just put them off with an evasive answer." At supper-time Pat was asked if any one had called. "Faix, there did." "And what did you tell him?" said the priest. "Shure, an' I give him an evasive answer." "How was that?" queried his reverence. "He axed me was yer honor in, an' I sez to him, sez I, was your gran'mother a hootowl?"—[New Haven Register.

"No, sir; my daughter can never be yours." "I don't want her to be my daughter!" broke in the young ardent; "I want her to be my wife."



THE BUCK JUMPER.

Rabbits are subject to colds and hoarseness, as we are, and have what is called the "snuffles." While this disease lasts, they should be kept dry and warm, and be fed with barley-meal, made into paste with a little milk; and no water or green food should be given to them till they recover. Rabbits are also afflicted with a complaint of the liver, which generally arises from damp beds and foul hutches, want of exercise, &c. The only remedy for this complaint is the blow behind the ears, but it is easily prevented by nice dry hutches, bedding, and good and wholesome food.

A cannon ball weighing 25 lbs. was discovered recently by a number of boys while playing in a plantation, near Philipbaugh Lodge, Selkirk, Scotland. It is supposed that it has lain there since the battle of Philipbaugh, A. D. 1645.

## Family Circle.

## A Woman's Story.

O'er the gables of our dwelling  
Swung the ivy night and day,  
When the summer winds came breathing,  
Where the swallows loved to play.  
From the topmost windows gazing,  
We could see the ships go by,  
And their white sails seem'd suspended  
'Twixt the blue sea and the sky.  
Sea-gulls on slow pinions floated  
O'er them, when the days were fair ;  
Like the ghosts of souls departed,  
Bound for a serener air,  
Came fresh odours of the seaweed  
O'er the sand-hills and the bent ;  
Mingling round about our homestead,  
With the garden's softer scent.  
Fair, I wis, the days went by me,  
Free from shade of earthly care ;  
When I ruled my father's dwelling,  
I, his daughter and his heir.  
Never knew I mother's counsel,  
Ere my childhood she was dead ;  
Never felt I hands of blessing  
Waved above my infant head.  
Stern my father was, and sterner  
Grew when his great loss befell ;  
Yet my eyes were like my mother's  
And he loved his daughter well.  
Scarcely had I play or playmate,  
Nature was a nurse to me ;  
And I loved our lonely mountains,  
And the thunder of the sea.  
All my joy was on the ocean,  
All my fancy for the foam,  
Mourn'd I for my hard condition,  
That a girl must bide at home.  
So I loved the sea, and sailors ;  
Joyful when my father came :  
"On the morrow greet your cousin,  
He who bears your mother's name."  
Cousin Willie was a sailor ;  
Scarce a year the lad had been  
Cruising in the Channel squadron,  
For his country and his Queen,  
When a fever strong and direful  
Laid him on a bed of pain,  
And he sought a season's absence  
Ere he went a cruise again.  
Thus he came to sojourn with us —  
Our home softer breezes fann'd  
Than those sweeping o'er his dwelling  
In the distant northern land.  
And he needed woman's tendance,  
Till the red blood coursed once more,  
In his fair cheek and his forehead ;  
And a grateful heart he bore  
For my nursing, saying, "Cousin,  
Fewer are my years than thine,  
Yet my heart has learnt to love thee :  
Will you, then, one day be mine ?"

Scarce an answer could I make him ;  
For I loved the boy too well ;  
"Willie," said I, "many a summer  
Must pass o'er ere you tell  
Any maiden that you love her.  
Other faces far above ;—  
This is gratitude, my cousin,  
And I not name it love."  
Said he, with a boy's devotion,  
"Cousin, I have spoken truth.  
Can you blame me for my loving—  
Do you scorn me for my youth ?  
Lo ! now, love makes all things equal,  
And, ah ! happy boon for me,  
I have now achieved my manhood,  
In that I have knelt to thee."  
"Be it so," I said, "my cousin,  
Though my heart misgives me sore  
If you'd have me wed you, Willie,  
Ask me when you come once more."

Happy days and nights went over,  
Tender Willie was and true ;  
How I worshipp'd my boy lover,  
Scarcely in my heart I knew.  
Yet a fear was still before me  
For our future—years to him  
Would show many fairer faces,

While my eyes were growing dim.  
Absence from my side might change him,  
And I vow'd I would not blame  
If he bow'd him to another,  
And I never bore his name.  
I would still enjoy the present,  
And the incense all too sweet  
To a woman, of man's worship  
And a lover at her feet.  
So the time went on, till Autumn  
Brought us to the fatal day.  
Willie kiss'd, and left me weeping,  
And I watch'd him sail away.

When my lover had departed,  
Sad I was and very lone,  
All the old familiar places  
Made me feel that he was gone.  
Pleasant pathways in the woodland  
Seem'd to breathe his words again ;  
And I heard his merry laughter  
In the ripples of the main.  
Many a strange and sad foreboding  
Had I for the coming years.  
Thoughts of Willie grown inconstant,  
While my love grew with my fears.  
I was proud indeed to love him,  
So I told myself, and swore  
Time that changed him should not change me,  
I would love him evermore.  
Only one love in a life-time  
Such as mine the heart can hold ;  
So I clung to love as closely  
As a miser hugs his gold.

Years roll'd on. And still the tidings  
Came from Willie far away ;  
While his country needed service,  
Still the boy was blithe to stay.  
And another fear had empire  
Ever, in my troubled breast ;  
Would he ne'er return to England,  
Unto loving hearts and rest ?  
I had wealth enough to dower him,  
Mistress of my father's land,  
If he'd rest beneath our mountains,  
And take all things from my hand.  
Then at last the war was over,  
And my boy was coming back ;  
Saw I in my dreams the vessel,  
And the white foam in her track.  
They had landed—strange I thought it  
That my Willie should depart  
For his northern home, unrecking  
That he pass'd an aching heart.

Though his northern kindred claim'd him,  
Yet he might have stay'd a space ;  
Turn'd aside one hour to see me,  
Who had long'd so for his face.  
He would come, he wrote, yet tarried  
Still, unheedful of my woe ;  
Had he changed, and ceased to love me ?  
Surely I had right to know.  
Days went by, a deeper sadness  
Came upon me when I knew  
All my dream of love was ended,  
And my Willie was not true.  
By a woman's subtler instinct  
I could read the heart of youth ;  
When my darling vow'd to love me—  
Surely he believed it truth,  
But the years had brought deliverance  
From his fancy. Then there came  
Stately letters from his mother,  
Fain to save me from the shame.

Wrote she : "When my son in loving  
Loved a noble heart like thine,  
Surely I had made you welcome.  
Here among these girls of mine,  
I have look'd with gladness forward  
Ever as a mother may,  
To his resting here in England,  
And his happy marriage day.  
Now a change has come. He lingers  
Daily by a baby face,  
So I bid you here, Miss Raeburn,  
That you may assert your place.  
She is fair, but fairer honor  
Is, and to his plighted bride  
Son of mine should ne'er prove faithless,  
I had rather that he died.

Will you come then to the Norland ?  
Summer to our hills has lent  
Fresher beauty. Know our welcome."  
So she ended, and I went.

On by many a waving woodland  
Sped we, till the day grew dim ;  
Little reck'd I of the landscape—  
For my thoughts were all of him.  
Cold the moon look'd down from Heaven  
On me, all that weary night,  
Till she paled before the morning,  
And I saw each mountain height  
Crown'd with crimson from the sunrise,  
Fair as erst my hopes had been :  
Then we whirl'd along a valley  
Where amid its mosses green  
Ran a rivulet, its waters  
Sparkling ; rose the fir trees tall  
Round an ancient house, with turrets  
And a castellated wall.  
Then from my remembrance faded  
On what errand I had come ;  
All my soul went on to meet him—  
For the place was Willie's home !

Willie came ; my boyish lover  
Had to stalwart manhood grown ;  
But I saw his love had vanish'd—  
I must walk the world alone.  
Yet he spoke no word of changing,  
And seem'd happy I was there—  
Well I knew his heart had altered,  
And I was no longer fair.  
Earnestly his mother pleaded—  
"See, Miss Raeburn, he is true ;  
Gone the shadow of dishonor,  
And his heart flies back to you."  
Spoke she, standing by the window :—  
Where the streamlet's mimic whirl  
Sparkled in the valley's centre  
Willie stood ; a fair young girl  
Walk'd beside him. "Yonder," said I,  
"She has gain'd him ; he it so :  
Sweeter lips than mine have won him  
Though I loved him—years ago."  
Then I bade them bring the maiden  
Willie loved, that I might see  
How her fresher face had won him  
From allegiance vow'd to me.  
Could I wonder at his falsehood,  
When she came, as fair and young  
As a painter's bright ideal ?  
Never poet's rhyme has sung  
Eyes of such enthralling lustre,  
Hair of such a glorious hue.  
Long I look'd at her, nor wonder'd  
That my Willie was not true.  
Tearfully she stood beside me,  
Vowing she had done me wrong,  
"Ah ! what right had I to rob you,  
You who knew and loved him long ?"  
"Trust me for forgiveness," said I—  
With her soft face on my breast,  
"See you love him very dearly,  
Willie's happiness is best."  
Then I left them and I journey'd  
Homeward to the southern sea :  
Left the wealth of love behind me,  
That my fate denied to me.  
Tidings from the North thereafter  
Came, from Willie's happy wife,  
Saying he had found his haven,  
And had left his sailor's life.  
And I answer'd, words of greeting,  
Asking one month of their year,  
Would they visit olden places  
That for Willie's sake were dear.  
Calmly I can wait their coming,  
With no heart-throb at his look,  
I have shut my soul from loving,  
Closed it as a sealed book.  
And I hold the poet's saying,  
Although bitter tears it cost ;  
Better than a life that's loveless  
Is it, to have loved and lost.

MARTIN CAREW.

The American "bud" balls have been introduced into England. Girls under 15 wear rose buds in their first infancy of bloom ; those under 20 wear half-opened buds, and those over that age wear full-blown roses.

So Blue.

A STORY OF A WELLESLEY GIRL.

"My child, you have more than fulfilled every hope I ever formed of you. I knew when I sent you to Wellesley that you could not fail to acquit yourself well, but I did not look for this."

Magdalen Foster blushed with pleasure at her father's words, as well she might, for the letter in her hand announced that the papers sent up by her at the recent classical examination entitled her to the ninth place in the first class. The fact of her womanhood stood in the way of the B. A. degree being actually conferred upon her, but that was a matter of no consequence whatever to a girl who had worked solely for the love of knowledge implanted and fostered in her by a scholarly father.

"Well, Magdalen, I'm sure I congratulate you heartily," said her sister Nora; "and all the more so because now, at last, I suppose you will consider yourself blue enough."

The blush of pleasure now faded from Magdalen's cheeks. "I never wanted for to be blue," she said nervously.

"Then I'm afraid you have succeeded without the wanting," laughed Nora. "Why, my dear, you are a blue of the very deepest dye; and you not only are it, but you look it. You don't go about in cap and gown, or with spectacles and ink fingers, but there is no mistaking in you the model of a 'sweet girl graduate.'"

There was a certain amount of truth in this Magdalen, especially by the side of the pretty if rather dollish featured Nora, was studious looking, to say the least. She was tall and stooped slightly, her complexion, though clear, was colorless, and she had the reflective, full look that is not infrequently the sign of habitual study. Yet her face was singularly sweet in expression, the open, tranquil brow seemed incapable of frowning, the brown eyes might be dreamy, but never irate.

"Magdalen," asked her father after a while, "are you still willing to become my amanuensis?"

"Oh, papa," returned the girl, eagerly, "I shall be so proud if you will let me."

Mr. Foster was an eminent student of the classics, and it had always been Magdalen's great ambition to help him in the preparation of his valuable works.

She did not foresee all the results of her college achievements, and of this new relation to her father. It did not occur to the simple-minded girl that there was anything in what she had done to alienate her from her old acquaintances. Yet so it was. Quite unconsciously she awed her contemporaries, who, girls and young men alike, fought shy of so distinguished a blue-stocking.

Married women, again, found her ignorant of her domestic interests, while she was too timid to open out to elder men. Children alone, unable to comprehend the talk about her learning, were guided by the simple sweetness of her face, and fearlessly made a plaything of her. With them she could be happy, but in the midst of people who insisted upon paying her compliments and treating her with deference, her manner became stiff and distant for very shyness. Society became distasteful to her, and gradually people left off inviting her, under the mistaken impression that she was above caring for any entertainment they could offer. She remained Miss Foster only in name; to all intents and purposes Nora was the elder sister. While Magdalen had been poring over her books, Nora had studied the art of making herself agreeable, and assiduously cultivated various useful gifts. She was musical and clever with her pencil, could ride, and play tennis well; also she had the bright, attractive beauty that trebles the value of all such social accomplishments. And, above all, she knew exactly how to turn every one of her good points to the best possible account. It will thus be seen how easy it was for her to keep Magdalen in the background, and by skillful insinuations throw her own good qualities into greater relief than ever.

One evening they were taken by surprise by the unexpected arrival of Will Fairbairn, an old friend and play-fellow. Dinner was just being served, and the young man took his seat among them, laughing and putting up his hands as if to petition against the volley of questions and exclamations with which he was saluted.

"I haven't distinguished a single word any one has said," he declared at last.

"But I imagine you are asking where I sprang from and what I've come about. Briefly, then, I'm off to the West in a month's time, and have come to bid you all a long farewell."

"Farewell!" exclaimed all the Fosters. "What do you mean?"

"I had \$25,000 left me by my aunt," Will proceeded to explain; "and a friend strongly advises me to invest it in cattle. He says they pay tremendously and the life is delightful. I have consulted every possible authority and really don't see that I could do better. I hate office work, I haven't the brains to take up a profession, and farming here is no go. And I consider that I am rather cut out for a rancher."

He ended in a tone of modest self-appreciation, which was not unwarranted, for he was a man of splendid physique. Besides which, all his tastes fitted him for an occupation demanding physical rather than mental ability. He had never cared for study. So long as he could scrape on at school and college without disgracing himself he was content, and devoted his heartiest energies to the athletic sports in which his soul delighted.

Dinner over, Mr. Foster rose almost immediately from the table.

"Can you spare me an extra hour this evening, Magdalen?" he asked.

"Certainly, papa, I will come at once."

"Magdalen is a good deal changed," remarked Will, as he and Nora strolled out into the garden together. Nora offered her own explanation, taking care to speak in the most affectionate sisterly tone.

"Yes," she said; "you are right. You see ever since Magdalen returned from Wellesley she has been encouraged in her devotion to study. People express the greatest admiration for her talents; then papa has made her his secretary, and so, without being in the least con-

coited, she naturally feels that she is superior to the girls she ordinarily meets. You know, Will, I can't help thinking it is a mistake to let her grow so very learned. I think it is a woman's part to be helpful and domestic, to take interest in the good management of small matters, and in the welfare of those about her."

"Why can't Magdalen be domestic as well as intellectual?" demanded Will moodily. "I don't see the incompatibility."

Nora did not choose to tell him that Magdalen had begged to be allowed to take part in the household affairs and that she herself had opposed the suggestion. She had gained a character for domesticity, and she did not wish to have her supremacy shared.

"I dare say there is no actual incompatibility," she admitted gently; "but Magdalen is so wrapped up in her work for papa that we never think of occupying her mind with matters which I am quite willing to see after myself. Why should she be bothered? She is not the girl to marry, unless indeed"—Nora laughed gaily—"she could find a man that was all intellect and had no bodily needs to minister to."

Poor Will! Magdalen joined them in the garden later on, but for his own sake he held aloof from her. The girl was greatly hurt, as of old she had been his special friend. Too shy to complain, however, she shrank into herself, and with a pang of regret, saw Will fall into the way of the world—treat her, namely, with distant respect, and Nora with familiar friendliness. He had not been at Foster's many days before his name was coupled with Nora's by all the match-makers in the neighborhood. The good people were much mistaken. Will might walk, ride or play tennis with Nora, or even condescend to himself her cavalier and escort on every possible occasion, but secretly his heart went out towards Magdalen. Yet how, after Nora's words, could he dream of betraying his devotion? How could he, a man whose only attainments were those of physical strength and agility, hope to please a girl thrown both by training and natural bent in the midst of purely intellectual interests? Sadly he told himself that she was not for him.

And Magdalen as sadly told herself that somehow she had forfeited Will's friendship, by which, had he only known it, she had set great store. He seemed to her the perfection of a gentleman, and perhaps his want of learning was the thing she liked best about him; so cordially did she hold her own blueness in abhorrence.

Thus were the two kept apart by a phantom barrier raised between them by Nora, who, without caring for Will herself, resented his preference to Magdalen. She was under no misapprehensions as to his feelings, and yet a petty jealousy debarred her from doing what lay in her power toward bringing about a better understanding between him and her sister.

Will's last day arrived. A large tennis party was to take place at Foster's in the afternoon, as a sort of farewell entertainment for him, and he did his best to throw off the despondency which oppressed him.

"Will you play to-day, Magdalen?" he asked, very hesitatingly in the morning.

Magdalen shook her head.

"No," she said shyly, "I don't play tennis."

"Of course not," laughed Nora. "Will, what an extraordinary idea! As if you didn't know Magdalen was above tennis."

"It is not that," said Magdalen, coloring; "but that tennis is above me. I tried it again and again at Wellesley, but it was never any good. I only spoil every set I play in."

"Oh, well, you can't play or you won't," said Nora impatiently; "it's all the same."

Nora's sudden ill temper seemed very uncalled for, but she was irritated by the disappointment on Will's face. Presently, however, her equanimity was restored, and she said, putting her hand to the young man who had turned to her, "I will be your partner; and you, Magdalen, need not play, but shall talk to the people—that is, if papa can spare us his walking Dictionary of Antiquities."

Another allusion to her blueness! Magdalen gave her sister an appealing look and turned away. Will fell into a brown study.

During the afternoon he played a good deal with Nora as his partner, and the two proved an invincible couple. As Nora was fully occupied with the game, Magdalen was called upon for once to do her share in receiving and talking to the guests. They were more than ever impressed with her intense blueness, for the poor girl had the heartache, and found it strangely hard to look bright and smiling. Many were the remarks made to her about Will and Nora, who certainly played admirably together.

In the middle of one exciting set, a young married lady, who was sitting next to Magdalen, whispered confidentially, "Those two are made for one another, aren't they? Depend upon it they will be partners in earnest before Mr. Fairbairn leaves."

Magdalen went a little pale as she answered, evasively. "Every one likes to have Nora for a partner."

"Yes, yes, I know; but not in the sense I mean. What a loss she will be to us all! Now tell me do you think Mr. Foster will let her go with him, or will they have to wait?"

This was going too far, Magdalen thought. "The question has not been discussed yet," she replied distantly; and, awed by her manner, the young lady subsided into silence.

Magdalen went up to her room, when the party was over, in a very miserable frame of mind. As she cast a retrospect over her life of late, it seemed to her that her success at Wellesley had cost her everything she most cared about. She did not know how much her three years at Wellesley had done for her. She was not in a position to realize the all important difference between her habit of mind and that of Nora's, between her unwieldiness and Nora's worldliness. It is worthy of note that these so-called Wellesley "blues" are, for the most part, especially simple girls.

The twilight deepened, and at last Will could delay the inevitable leave-taking no longer. Magdalen kept out of the room. Will's going was the most terrible thing

that had ever happened to her, and she would rather not say good-bye at all, than have to do it carelessly before them all.

"Where is Magdalen?" asked Will presently.

"She was looking out something in Herodotus for me just now, Will," said Mr. Foster. "Eva, go and call her; tell her that is waiting to say good-bye."

Poor Will! It was a bitter thought that she could not leave her Greek of her own accord, even to bid him farewell.

"Magdalen is not in the study, papa," said the child, returning. "Jane says she saw her go down the garden into the shrubbery."

"I will go to her there," said Will, hastily.

The place referred to was a small preserve just outside of Mr. Foster's garden, and it was not many minutes before Will found Magdalen. She was lying on the ground in the dusk, her face buried in her hands, and her whole frame shaken by violent sobs. In a moment he was kneeling beside her.

"Magdalen," he exclaimed anxiously, "what is it?"

At the sound of his voice Magdalen rose, and checked her tears. "Nothing, Will," she said, with quivering lips.

"Don't say nothing when you mean something," said Will. "Maggie, tell me, what is the matter?"

He was the only person that ever called her Maggie, and now the old pet name, used for the first time this visit, renewed the confidence that had existed between them as children.

"I'm so unhappy," said Magdalen, "so dull, and blue, and stupid. I am no good to any one, and nobody cares for me."

"Now, Maggie," said Will, "you have told at least half a dozen fibs. You are not dull, you are not stupid, you are not blue—at least, if you are blue, blueness is particularly charming; you are good for a great deal, and everybody cares for you?"

Magdalen shook her head.

"Don't be unreasonable," remonstrated Will—"what about me?" "Don't I care for you?"

His voice was full of a tenderness which Magdalen shyly ignored.

"You used to," she said.

It was all over with Will; no power on earth could have held him back now from pouring out his confession to her.

"Magdalen," he said, "if I tell you I love you, worship you, think of you night and day, could you answer anything but that you don't care whether I do or not?"

It was out now. Magdalen stood and gazed, as if she could not believe her ears, at the hand that had grasped hers. At last a smile of wonderful happiness stole about her lips.

"Why, Will," she said, raising her eyes to his; "it was just you that I minded most of all about; but you don't—you can't really mean—"

Will did not find it very difficult to satisfy her that he could and did mean all and more than he had said. Great was the amazement of the Fosters when presently they re-entered the sitting-room together, and Will announced that he never meant to say good-bye to Magdalen at all.

Mr. Foster's consent given, he changed his plans, invested all his capital in the East after all, and eventually settled down on a large farm near the Fosters, as happy a husband, with as happy a wife, as was to be found in the United States.

Is that possible? Could they live for long together without a difference between them becoming a discord? Yes; for the wise professor at the breakfast-table points out to us, "It takes a very true man to be a fitting companion for a woman of genius, but not a very great one."

At the Toilet Table.

TO REMOVE FRECKLES.—Take a teaspoonful of lemon juice, a quarter of a dram of powdered borax, and half a dram of fine sugar. Mix together, and let them stand a week in a glass bottle; then rub a little on the hands and face at night.

TO CLEANSE THE HAIR.—To one gill of warm water, add 20 drops of aqua ammonia, and with a bit of flannel or a sponge, wash the head and hair, dividing it into partings, so as to rub out the dandruff thoroughly. Then comb the head with a fine-tooth comb, and let it dry in the air. This hair wash has been tried for years, and will not only keep the head very clean if used twice a month, but preserve the color and thickness of the hair.

TO FILL SMELLING BOTTLES.—Take equal parts of sal ammoniac crushed to a coarse powder, and pearl-ash, mixed together, and perfume it with two or three drops of some essential oil, like neroli, or lavender. Strength is increased by holding the bottle in the warm hand. Concentrated acetic acid can be used instead of salts of ammonia, and then the bottle should be first filled with a few crystals of sulphate of potash, and some small bits of sponge moistened with the acid, and the perfume can be dropped upon them.

Norland? cent welcome. land w dim; ape— of him. from Heaven ht, rning, height the sunrise, be: ley reen es tall th turrets faded me; him— home! er grown; shid— one. ng, there— altered, d— s true; r, you." window:— mic whirl g girl der," said I. it so: won him s ago." maiden on him me. ood, d young ng re, e. nder'd ue. e, wrong, ob you, him long?" said I— breast, rly, ey'd sea: and me, t. after wife, en, fe. eeting, year, s dear. ng, look, ing, t. MARTIN CAREW. s have been intro- 15 wear rose bloom; those un- s, and those over s.

### Minnie May's Department.

MY DEAR NIECES,—Let me urge upon you the necessity of reading, not the light literature of the day, filling your young minds with love-sick nonsense, but instead, let the time be spent, if only half an hour each day, in reading some of the standard works from the pens of men like Scott, Dickens, Thackeray, Shakespeare, etc., etc. You cannot imagine the pleasure derived from an hour or so spent with such men, for so it almost seems when reading these novels. We are thereby enabled to converse more fluently, and they fill our minds with noble thoughts that cannot possibly be obtained from trashy novels. Try it, dear girls; perhaps you may find it a little dull at first, especially those among you who have been in the habit of indulging in the lighter writings, but persevere, and in time you will turn in disgust from those frivolous things as being unsatisfactory food—in fact, no food at all—for the mind.

Another important matter is the reading of the newspaper. Some consider it quite unnecessary for women, even harmful to young people. We do not agree with that idea, for if read aright it only proves an advantage to all. The following extract from an article found in an old magazine, explains our views so well that we cannot do better than quote it:

"Let me especially urge the reading of the newspaper as a distinct means of self-culture, upon women. Women, in their quiet household life, may go on for weeks hardly hearing a word of what is passing in the great world outside, and the little that they do hear conveying no living meaning to them. I think this is a great evil. It not only narrows the range of woman's life, but she loses a great deal of happiness which would come of intellectual companionship and community of interest with men, with a brother, a father or a husband. At present, when women do get hold of the newspaper, it is often the case that the last thing they look at is that which has most interest for men. I would have every woman read the newspaper for herself, not merely for half an hour's amusement, but with the definite object of escaping the natural danger of her quiet home life, and keeping an open eye and an understanding mind for the passing history of nations, and the great interests which are stirring the heart of the world."

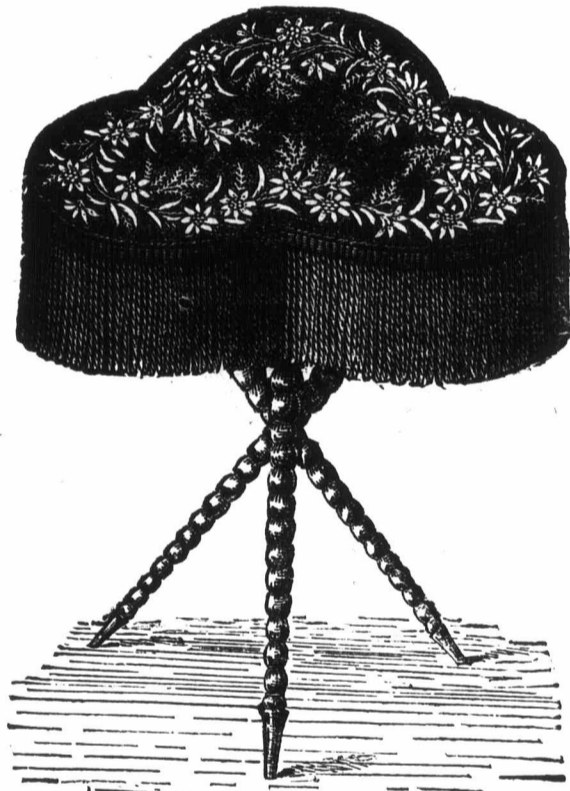
What we want is to see woman brought more up to the level of man as a companion and a friend in the way of intellectual community of thought, have her assert her right position, and prove herself worthy of being what should be a true woman's highest ambition—a *helpmate*, morally and intellectually, to man.

MINNIE MAY.

English women have begun to adopt a fashion introduced by a graceful Spaniard at a recent reception in London—a kid-embroidered jacket, matching the exact shade of the velvet skirt.

### Occasional Table.

The table is a low clover-leaf shape, covered with dark crimson satin embroidered from the enlarged design. The blossoms of edelweiss are embroidered with white chenille in satin stitch, the center being worked with satin stitches of yellow silk crossed in overcast stitch of brown silk. The calices are worked with gray-green silk in satin stitch, and the grasses in point russe with brown silk. The leaves, stems, and tendrils are worked with various shades of olive-green in satin and overcast stitch. When the embroidery is finished, lay it on a flannel and press lightly with a warm iron on the wrong side. On putting the satin on the top of the table, tack it lightly in several places before doing it firmly, to make sure that it will be smooth. Trim the cover evenly round the edge, and finish with a deep handsome fringe.



OCCASIONAL TABLE.

### Answers to Inquirers.

ALBERT EDWARD.—1. When invited to a private party is it necessary to reply?—I mean when I intend to accept. 2. Is it necessary to ask all the ladies of the family to dance, even when I prefer dancing with other younger ladies? **ANS.**—Yes, an acceptance should be sent at once. 2. Yes, you should not only ask the ladies of the family, but also any guests who may seem to be neglected. A young man should always put himself at the disposal of his hostess occasionally during the evening and take out any wall flower that she may indicate. These are termed duty dances, and it is certainly the duty of each guest to assist the hostess in making the evening pass pleasantly to all.

MRS. W. B.—For want of fresh fish we have to use salted codfish at times and should be glad to know how to prepare it nicely? **ANS.**—This fish should be soaked in running water all night before it is to be used. On account of its

dryness it must be stewed, but it is very nice when cut into pieces and stewed until tender, the water drawn off and the fish smothered in white sauce made with milk and butter; for garnishing use slices of lard, boiled egg and lemon. Cold fish is very nice when torn to shreds and made into fritters with four eggs and a cup of milk for a cupful of the fish, and cooked as griddle cakes. Flavor with a little lemon juice squeezed on the cakes. Another way is to scramble the fish as follows: with the eggs and milk as above, cook the fish in a buttered pan, stirring while cooking; then drop on to a buttered tin and bake.

SWEET BRIER asks why it is improper for young ladies to go sleigh riding with young men, and goes on to give us a rather sharp lecture for daring to say that it is so. Sweet Brier's letter is not very lucid, else we might give it entire and think it would answer itself. She declares that she cannot see the harm in "snugling up to a young man and having his arm around her waist just to keep the buffaloes up," etc., etc. It is lamentable that any young lady can have such mistaken ideas of the proprieties of life. Her natural delicacy and self-respect, if not her common sense, should be better guides. To be respected is a greater compliment than to be loved, and enduring love can only follow after respect, for no true man admires that species of womanhood which does not hold itself above all familiarities. No young woman can afford to lose her charm of sweet gracious dignity which would most effectually check all ungentlemanly advances.

NELLIE T.—Man in the Moon is a name popularly given to the dark lines and spots upon the surface of the moon, which are visible to the naked eye, and which when examined with a good telescope are discovered to be the shadows of lunar mountains. It is one of the most popular, and perhaps one of the most ancient superstitions in the world, that these lines and spots are the figure of a man leaning on a fork on which he carried a bundle of thorns or brushwood, for stealing which on a Sunday he was confined in the moon.

### Clothes-pin Apron.

"Aunt Nellie" sends the following: "A great help in hanging out clothes is an apron to put the pins in. Mine is sixteen inches long and eighteen inches wide, rounded at the corners. It is double, and at each side near the belt the outside piece is cut away and bound, making openings to put in the pins and take them out when hanging out the clothes. The apron is bound around firmly and will hold several dozens of pins. A belt fastens it about the waist, and with this on there is no need of stooping to pick up clothes-pins. In this apron may be kept a pair of cotton flannel mittens to wear when hanging out clothes in cold weather. They are a great saving of the hands. One who has once had a pair of these mittens and one of these aprons will not willingly do without either of them."

**Description of Design in Outline.**

This design is suitable for working on doyleys, tidies, sham towels, etc. The pattern can be traced by laying a piece of impression paper on the material, if it be of a light color, or by basting a piece of tissue paper with the pattern drawn on it, on the cloth. Still another way is to trace the pattern on rather thick paper, then prick the outline with a needle, place the pattern on the material and rub over it a soft cloth previously dipped in tracing powder. Then place a paper over that, and press with a warm iron. In working these figures it is only the lines marked that are to be worked. Black on red, on a white or cream ground, would be pretty.

**Pick-up Work.**

BY MARGARET ALLEN.

"I was just going to get mother to hold this yarn for me, but if you would just as soon hold it, I'll wind it while we visit. I'm all out of "pick-up work," and was just going over to Emma Smith's to learn how to crochet an under-skirt."

This is the text which my systematic friend Anna Green gave me the other day when I called to see if she was through with some books I lent her. I had often wondered how the busy little school teacher found time for all the home and church work which she did without neglecting in the least her school duties. I learned from her that all the useful and ornamental things she had for home and personal adornment were made as "pick-up work" at odd moments. As soon as one piece of work was finished she began another, which she kept on hand, never being in a hurry to finish it, working at it only at such times as she could

not profitably spend in reading. Women with tired brains can often rest better while the hands are employed with some light work which does not require much thought or attention.

Pick-up work may look like a very irregular unsystematic kind of work, but a little experience will show any one that what is accomplished in that way is the result of much planning and forethought. The busy housekeeper, in laying out her work beforehand, must always leave a wide margin for the unexpected things which she must always expect. She hopes and expects her friends will come to see her, but she does not know just when they will drop in. If she had a little pick-up work ready and handy, it would not make her a whit the less sociable to work on it while they chatted, and after they left she would not be so apt to exchange her parting smile for a frown, or wish they had not stayed so long. A minister's wife noted for her social qualities did all the knitting for

family of seven, including four girls in short dresses, while she visited with informal callers. The busy mother can systematize her family sewing so as to do much of it while listening to husband or children as they read during these long winter evenings. She can cut it out and do what has to be done on the machine during the day, and leave the hand work for evenings.

It is a good rule for house-keepers never to sit down in the afternoons, when the house is quiet and they are alone, and do work that could just as well be done when some one is in, unless it is something they are obliged to do. This will seldom happen if they place their work ahead. Such quiet hours should be kept for solid reading. Systematic pick-up work would furnish many such hours and prevent the ready excuse of no time for such reading.

**Recipes.**

SWISS PUDDING WITH CREAM SAUCE.—Ingredients— $\frac{1}{2}$  pound flour, 6 oz. granulated

sugar, 3 oz. butter, 1 pint milk, 1 egg, baking powder and flavoring. Sauce—Stir together over the fire one ounce each of flour and butter, as soon as they are smooth, pour into them half a pint of boiling milk, add two ounces of sugar and half a teaspoonful of lemon flavoring, and use with the pudding as soon as it boils up.

break into it two eggs; add milk and flour, flavor with grated rind and juice of a lemon.

CANDY DROPS.—Boil one pound of sugar in half a pint of water; flavor to taste; pour in small drops on buttered paper.

JOHNNY CAKE.—One pint Indian meal, one teaspoonful of salt, small piece of butter. Pour on this, stirring all the time, sufficient boiling water to mix it thoroughly, and thick enough to spread about thick on a bake pan. Bake brown.

OMELET.—Four eggs, two tablespoonfuls of flour, one pint of milk, salt; beat whites to a stiff froth; mix yolks well with the rest, adding whites last. Put a small piece of butter into the spider, pour in the mixture, and as it thickens turn half over on the other and roll up. Close attention is required to cook nicely.

A BAKED APPLE DUMPLING is preferable to a slice of pudding, sometimes, and they are nice made this way: Make a fine biscuit dough, roll out to half an inch in thickness, cut into squares and lay in the centre of each a tart, juicy apple, pared and cored. Bring the corners of the square neatly together and secure them with a pinch. Place in a buttered baking pan and bake to a fine brown. When done, brush over with beaten white of egg, and put back in oven a minute, then take out and sift over powdered white sugar. Eat hot, with rich, sweet sauce.



SCANDAL  
"WHAT DO YOU THINK?" "I'M SURE I DON'T KNOW."  
"DON'T TELL ANYBODY!" "OH NO!" "OH NO!"

**Forgive and Forget.**

If all persons would forgive and forget, what a great increase there would be in the happiness of this life! Opportunities for revenge would no longer be sought or desired. Many dark clouds which arise in our moral skies, produced by malice, might instantly be removed by these magi-

cal words, "I will forgive and forget." Excited passions would be quieted, and there would be more kind words and cheerful hearts. We often hear the expression, "I can forgive, but cannot forget." If truly forgive, then to forget is a natural result. When we speak of forgetting a wrong we do not wish to be understood to say that all remembrance of it is entirely obliterated, but that the mind is so occupied by better thoughts of friendship and love that the thought remains in oblivion until some circumstance produces a recollection of it, but when it does occur to the mind it has no power to excite any feelings of displeasure. With such regulation of our thoughts and passions our lives will contain less gloom and more sunshine; our hopes may be raised up to the verge of realization; our ambition be made the highest and most ennobling.

Be satisfied with what you have. The good workman never finds fault with his tools.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—Words cannot express my delight upon receiving such a large budget of letters last month. I never possessed such a numerous family of nephews and nieces before, and you do not know how gladly your old Uncle Tom welcomes you all to his department. Now, I hope I shall not see a falling off next month, but rather an increase. To those who have sent puzzles and do not find them published, I say, "Don't be discouraged, there are many months before you." Some of your puzzles were very good, and may be inserted yet; I can only fill a small space with puzzles, consequently I pick those which I consider the best ones, and leave the rest for another time. I see some do not adhere strictly to the rules, though I think you must have read them many times; but for the benefit of the new competitors I will give them again, viz.: All puzzles must be original; answers must accompany all puzzles; also your name and address; all form of correspondence must be in the ADVOCATE office by the 25th of each month. Now, start afresh and make up some real good puzzles out of your own little heads. Now, before I close my letter, I will tell you something about Valentine's Day, which falls on the 14th February, as you well know. Valentine is, or, more correctly, was, celebrated in England, Scotland, and in different parts of the continent, particularly Lorraine and Maine, in France, by a very peculiar and amusing custom. On the eve of St. Valentine a number of young folk—maids and bachelors—would assemble together and inscribe upon little billets the names of an equal number of maids and bachelors of their acquaintance, throw the whole into a receptacle of some sort, and then draw them, lottery-wise—care, of course, being taken that each should draw one of the opposite sex. The person thus drawn became one's valentine. Of course, besides having got a valentine for one's self, one became, by the universality of the practice, some other person's valentine. But, as Misson, a learned traveler in the early part of last century, remarked, "the man stuck faster to the valentine that had fallen to him than to her to whom he had fallen." These imaginary engagements, as may be supposed, often led to real ones, because one necessary consequence of them was that, for a whole year, a bachelor remained bound to the service of his valentine, somewhat after the fashion of a medieval knight of romance to his lady love. For some time back the festival has ceased to possess the peaceful symbolic meaning it used to have, and has become a considerable nuisance. The approach of the day is heralded by the appearance of the shop windows filled with vast numbers of missives calculated for use on this occasion, each generally consisting of a single sheet of note-paper, on the first page of which is seen some ridiculous colored caricature of the male or female figure, with a few burlesque verses below. More rarely the print is of a sentimental kind, such as of Hymen's altar, with a pair undergoing initiation into wedded happiness before it, while Cupid flutters above, and hearts transfixed with his darts decorate the corners. But I would advise

my nephews and nieces not to send any of those ugly, vulgar valentines to any of their acquaintances, but if you wish to send any, buy pretty ones, no matter how small and inexpensive.

UNCLE TOM.

Puzzles.

1—HIDDEN GULFS AND BAYS.

- (1.) Did Anna deny taking that book from the table.
- (2.) Willie and Fred had great fun dyeing their hair.
- (3.) The teacher says I am a good boy.
- (4.) John sold one gallon and a half of molasses.

MARY B. CURRIE.

2—ANAGRAM.

O, eterh rea kolos dan notse htta tard  
Na tatinsn husneisn ot hte threa,  
Sa fi het losu ttha mntoen gauch  
Meso resatruue ti utrhogh file adh gthsou.

F. F. THOMPSON.

3—GEOGRAPHICAL PUZZLE.

One day in (a cape in the United States), (a bay in North America) and (a cape in the United States) went for a walk in the country. After a (island in the United States) walk they came to a wood, where they found a spring of (lake in North America). Not long after they saw a (lake in North America) cross the path before them, and as they stood shaking with (cape in the United States), they saw a (lake in Newfoundland) following him. It had been very (a mountain in North America) in the morning, but before noon there came up a bank of very (sea in Europe) clouds, so they started for home, but it was a very (river in British America) afternoon, and when they bid each other (cape in Greenland) they were a great deal (lake in Sweden) than if they had stayed at home.

ELLIS AUGUSTINE.

4—ILLUSTRATED REBUS.



5—DIAMOND PUZZLE.

A consonant, a stick, a title, the title lower in rank than the preceding one, tuned, a boy's name, a consonant.

MAGGIE F. ELLIOTT.

6—TRANSPOSITION.

Wy whole is a banquet; but if you  
A letter drop, you'll have in view  
A deed; transpose and it will be  
A word implying destiny;  
The same beheaded, and it will say  
What you and I did yesterday.

CHRISTENA HADCOCK.

7—DROP VOWEL PUZZLE.

F-r fr--d-m's b-ttl- -nc- b-g-n,  
B-q- - -th-d fr-m bl- -d-ng s-r-  
t- s-n,  
Th- -gh b-ll-d-ft -s -v-r-w-n.

SARAH M. BRETT.

8—BURIED RIVER.

- (1.) He cried on Tuesday.
- (2.) There are plenty near his house.
- (3.) The boy near the school is sick.
- (4.) This week is nearly past, rent unpaid, and the food is all finished.
- (5.) What weed is the most troublesome?
- (6.) He walked to the pump on Monday.

LUCY TURNBULL.

9—WORD SQUARE.

1, a direction; 2, means measurement; 3, to change owners; 4, a story.

AMELIA A. HALDANE.

10—NUMERICAL PUZZLE (TEN LETTERS).

- My 4, 5, 2 is a beverage.
- My 1, 2, 3 is a useful article.
- My 7, 8, 9, 19 means to conceal.
- My 1, 2, 9, 9, 10 means to convey.
- My 2, 3, 4 is an insect.
- My 7, 5, 3 is a boy's name.
- My 4, 8, 7 is a vat.
- My 6, 2, 4 is a small animal.
- My whole is a city in the British Isles.

CARRIE E. HENDRIE.

Answers to January Puzzles.

- 1—"You may break, you may ruin the vase, if you will, But the scent of the roses will cling to it still."
- 2—Happy is the miller who lives all by himself; The wheel goes round, he gathers up his wealth; One hand in the hopper and the other in the bag, The wheel goes round, they all cry grab.
- 3—Chatham.
- 4—

S	S
THE	ATE
SHAWL	STRAP
EWE	EAT
L	P
- 5—

E	the	L
Valparaiso		N
A	vo	N
N	othin	G
G	rie	F
E	glantin	E
L	owe	L
I	mperia	L
N	er	O
E	sche	W
- 6—Lantern.
- 7—Tyre, Nice, Debtford, Herat, Benares.
- 8—Orleans.
- 9—Cultivate your mind when you cannot cultivate your land.

Names of those who have sent Correct Answers to January Puzzles.

Wm. S. Howells, Mark Dearing, Eva J. E. Henderson, Christina Hadcock, M. C. S., J. D. Campbell, Emily Vansickle, Ellen D. Tupper, J. W. Forbes, C. Gertie Heck, A. J. Taylor, Chas. H. Foster, Maggie F. Elliott, Nellie Cook, B. M. Oxley, Amelia A. Haldane, Lottie A. Boss, Louisa Berg, Minnie E. Weldon, Addie E. Davidson, Linda Clemens, Ida Clemens, T. A., Agnes M. Flood, Mary Marshall, Jas. Watson, Robt. Kerr, Sarah M. Brett, Wm. Bowman, Henry Reeve, Aggie Wilson, Albert E. Warren, Robt. Kennedy, Wilson Sissons, Mary B. Currie, Carrie E. Hendrie, Arthur Fisher, Aggie Forbes, Maud Dennee, Geo. Barr, Jennie Millman, Esther Louisa Ryan, Simon Stahl, Richard Kingston, Byron E. Bowerman, Maggie E. Stenhouse, Jas. L. Robson, Neil McEwen, Elmon, N. Moyer, Jas. Bott, Maggie Rowe, Jacob N. Moyer, Gertrude Martin, W. L. Ross, Edward King, Henry Gingrich, Katie Miller, F. J. Yorke, Annie B. Craig, Phillip Harding, Henry Leathen, Lucy Turnbull, Sarah E. Miller, Belle Richardson, Peter Lamb, Eddie Johnstone, Donald, E. Roblin, Ivan Russell, J. Douglas Ramsay, Nellie Taylor, Will Thirlwall, Ada Armand, Wm. Carney, Martha Sanderson, F. F. Thompson, Ida Shipley, Reuben N. Shier, Becca Lowry, Ella McEwen, Isabella McLeod, Jas. Paterson, John C. Elliott, A. J. Phoenix, Tina Clark, P. Boulton, David Patton, Wm. B. Bell and W. Johnstone.

A Country Boy in Winter.

BY SARAH O. JEWETT.

The wind may blow the snow about,
For all I care, says Jack;
And I don't mind how cold it grows,

Far down the long snow-covered hills
It is such fun to coast,
So clear the road! the fastest sled
There is in school I boast.

When I go home at supper-time,
Ki! but my cheeks are red!
They burn and sting like anything:
I'm cross until I'm fed.

There's always something I can do
To pass the time away;
The dark comes quick in winter-time—
A short and stormy day;

I shall be glad when I grow up
And get all through with school,
I'll show them by-and-by that I
Was not meant for a fool.

I like to hear the old horse neigh
Just as I come in sight,
The oxen poke me with their horns
To get their hay at night.

Golden Rules for the Young.

The person who first sent these rules to be
printed says, truly, if any boy or girl thinks it
would be hard work to keep so many of them
in mind all the time, just think, also, what a
happy place it would be at home if you only
could:—

- 1. Shut every door after you and without
slamming it.
2. Never shout, run or jump in the house.
3. Never call to persons upstairs or in the
next room; if you wish to speak to them, go
quietly where they are.
4. Always speak kindly and politely to ser-
vants if you would have them do the same to
you.
5. When you are told to do, or not to do a
thing by either parent, never ask why you
should or should not do it.
6. Tell of your own faults and mis-doings;
not of those of your brothers and sisters.
7. Carefully clean the mud or snow off your
boots before entering the house.
8. Be prompt at every meal hour.
9. Never sit down at the table or in the par-
lor with dirty hands or tumbled hair.
10. Never interrupt any conversation, but
wait patiently your turn to speak.
11. Never reserve your good manners for
company, but be equally polite at home and
abroad.
12. Let your first, last and best friend be
your mother.

SPRING
PREMIUM LIST

FOR 1884.

Below will be found a few useful prizes for
sending us one or more new subscribers to the
FARMER'S ADVOCATE:

For One New Name with \$1.00
YOUR CHOICE OF

French Imperial Spring Wheat.—
A new spring wheat, introduced by a leading
American seed firm, who state that "it is special-
ly noted for its plump, hard kernels, which weigh
62 to 64 lbs. to the bushel. The grain is graded
'Extra heavy No. 1, hard.' This wheat is
very popular in the North-west where tried,
and is said to be best adapted to soils of a
medium fertility, as very rich soils tend to
make too much straw. Fields are reported of
40 bushels per acre." One packet per mail.

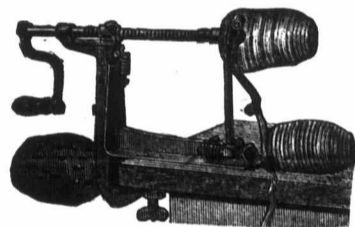
The Hobarto and the Mars Wheat.—
For description and full particulars of which,
please see page 44 of this issue.

Vegetable Seeds.—A useful collection of
12 varieties, and one packet novelties for 1884.

Flower Seeds.—A choice collection of 12
varieties, and a packet of new German Pansy.

Downing's Ever-bearing Mulberry.—
One plant. Something new.

For Three New Names with \$3.00:
The White Mountain Potato Parer.



This little simple machine pares potatoes and
takes out the eyes much more quickly than the
work can be done by hand. Exactly what
every household requires. Per express at re-
ceiver's expense. Or

For Six New Names with \$6.00:

A Fine Meteor Alarm Clock with
luminous face. You can see the time in the dark.
The most useful clock ever invented for a bed-



room. Every person should have one; saves
getting up and striking matches. Remember
that it has an alarm, and is warranted by the
makers to keep good time. Read what a
subscriber says in this issue about this clock.
Per express at receiver's expense.

SIR,—I send this to acknowledge the receipt
of the clock. It did not come as soon as anti-
cipated, but in plenty of time as a present for
the holidays. We got it on the 18th. It may

have been overlooked in the Express office. It
is really a handsome clock. The boy was de-
lighted with it, and so were we all. The alarm
works splendidly. I used to light the fire in
the morning, but since then the boys have done
it. It keeps excellent time, and is certainly
all that is claimed for it. I have known great
deception in such notices, but it cannot be so
said of this; it is beyond our expectation.
Wishing you much success, yours,
Paisley, Ont. J. A.

For One New Name with \$1.00:
STRAWBERRY PLANTS.

James Vick.—This lately introduced
variety turned out most remarkably well in
1883, and has become one of the most popular
and successful of the new claimants. Three
plants.

Jersey Queen.—This strawberry plant
stands exceedingly high in public favor for its
fine flavor, but has not done as well as the
James Vick as far as yield and hardiness is
concerned. Needs more care and better culti-
vation, but still is a very choice variety especi-
ally for amateurs. Three plants.

Daniel Boone.—This we consider to be
the most promising of any of the new varie-
ties. It grows well on both sand and clay
loam. If you can try but one new variety let
that be the Daniel Boone. Three plants.

The Farmer's Hand Book for 1884,
containing Calendar, Moon's changes, Dairy
of Farm Accounts, of Produce, Live Stock, Dairy
and Farm labor, with Breeding Register and a
most useful collection of Tables, Recipes, with
memoranda pages, &c., for the farmers, not
found in any other single book.

For Two New Names with \$2.00:

The Curfew or Homeward.—The
engraving is copied from the great painting
by Joseph Jolin. Competent judges consider
it the master work of that distinguished
artist. In successful combination of rural
scenery and exalted poetic sentiment it has
certainly never been excelled by brush of
American art. It is stein, copied in black and
two tints, in a high style of that art by the
well-known and eminent German artist, F. H.
Liefier. Per mail, post-paid.

For Three New Names with \$3.00:

How to Get Well, Keep Well and
Live Long.—DR. DANIELSON'S COUNSELOR,
WITH RECIPES. A trusty Guide for the family.
An illustrated book of nearly 800 pages, treating
Physiology, Hygiene, Medical Practice, etc.
Describing all known diseases and ailments,
and giving plain prescriptions for their cure,
with proper directions for home treatment.
The Recipes are endorsed by eminent physicians
and the medical press. Remedies are given in
a pleasant form and the reasons for their use.
It describes the best Washes, Liniments, Salves,
Plasters, Infusions, Pills, Injections, Sprays,
Syrups, Tonics, etc. These are valuable to
the physician and nurse, making it a manual
for reference. Diseases are described in
Popular Language and classified according to
recent authors. Subjects are contained in
the index, referring to all diseases and ailments,
which are carefully described, and plain pre-
scriptions given for their speedy cure; many of
these prescriptions are worth to any sick suffer-
er 50 times the cost of the book; the
medicines may be obtained of any druggist.
Per mail, post-paid.

HINTS.

Subscriptions can be commenced with any
month.

Send in your new names, by postal card or
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sends in new names other than his own, accom-
panied with \$1.00.

Our premiums, except book premiums, are
purchased under special conditions and at
special rates; consequently are not for sale.

### The Children.

When the lessons and tasks are all ended,  
And the school for the day is dismissed,  
And the little ones gather around me  
To bid me "Good night" and be kissed,  
O, the little white arms that encircle  
My neck in a tender embrace!  
O, the smiles that are halos of Heaven,  
Shedding sunshine and love on my face!  
And when they are gone I sit dreaming  
Of my childhood, too lovely to last;  
Of love that my heart will remember  
When it wakes to the pulse of the past,  
Ere the world and its wickedness made me  
A partner of sorrow and sin—  
When the glory of God was about me,  
And the glory of gladness within.  
O my heart grows weak as a woman's,  
And the fountain of feeling will flow,  
When I think of the paths, steep and stony,  
Where the feet of the dear ones must go;  
Of the mountains of sin hanging o'er them,  
Of the tempests of fate blowing wild—  
O, there's nothing on earth half so holy  
As the innocent heart of a child.  
They are idols of heart and of household,  
They are angels of God in disguise—  
His sunlight still sleeps in their tresses,  
His glory still beams in their eyes—  
O, those truants from earth and from heaven,  
They have made me more manly and mild,  
And I know now how Jesus could liken  
The kingdom of God to a child.  
Seek not a life for the dear ones  
All radiant as others have done,  
But that life may have just as much shadow,  
To temper the glare of the sun.  
I would pray God to guard them from evil,  
But my prayer would bound back to myself,  
Ah! a seraph may pray for a sinner,  
But a sinner must pray for himself.  
The twig is so easily bended,  
I have banished the rule and the rod;  
I have taught them the goodness of knowledge,  
They have taught me the goodness of God.  
My heart is a dungeon of darkness,  
Where I shut them from breaking a rule;  
My frown is sufficient correction,  
My love is the law of the school.  
I shall leave the old house in the autumn,  
To traverse the threshold no more;  
Ah! how I shall sigh for the dear ones  
That meet me each morn at the door.  
I shall miss the "Good nights" and the kisses,  
And the gush of their innocent glee,  
The group on the green, and the flowers  
That are brought every morning to me.  
I shall miss them at morn and at eve,  
Their song in the school and the street;  
I shall miss the low hum of their voices,  
And the tramp of their delicate feet.  
When the lessons and tasks are all ended,  
And Death says the school is dismissed,  
May the little ones gather around me,  
And bid me "Good night" and be kissed.  
—[Charles Dickens.]

### Importance of a Clean Skin.

Most of our invalids are such, and millions of more healthy people will become invalids, for the want of paying the most ordinary attention to the requirements of the skin. The membrane is too often regarded as a covering only, instead of a complicated piece of machinery, scarcely second in its texture and sensitiveness to the ear and eye. Many treat it with as little reference to its proper functions as if it were nothing better than a bag for their bones. It is this consideration for the skin that is the cause of a very large portion of the diseases of the world. If, as claimed by some scientists, four-fifths, in the bulk, of all we eat and drink, must either pass off through the skin or be turned back upon the system as a poison, and that life depends as much upon the exhalations through the skin as upon inhaling air through the lungs, it must be of vital importance to keep the channel free.

### Diphtheria.

BY MRS. L. H. GALE.

Diphtheria is scarcely more than a modification of scarlet fever. The patient first complains of lassitude, headache, loss of appetite; is chilly, with flushes of fever, active and quick pulse, a light furred tongue; redness of the back of the mouth, enlargement of the glands of the neck, a hot, dry, pungent skin; and in the second stage an exudation upon the mucous surfaces of the upper air-passages. This soon becomes organized into a tough, white or gray membrane, covering the soft palate and tonsils. These sometimes degenerate into ulcers. The breathing at this stage becomes hurried and difficult; pulse quick, and frequently the asphyxia ensuing ends in death. It generally reigns as an epidemic, and is regarded by some as contagious.

The very first care should be the throat. Cut pieces of salt fat pork, and cover the throat on each side, to exclude the air and sweat the neck; make a lotion of one teaspoonful carbolic acid, two teaspoonfuls-glycerine, two teaspoonfuls salt, half pint hot water; gargle the throat every half hour; sulphur, dessert spoonful to half teacup water; mix with the finger to be used as a gargle, alternate with the carbolic acid lotion; swab the throat every three or four hours, or often enough to dislodge the deposits, with equal parts of sulphur and tannic acid in dry powder mixed. Never use the same swab twice; burn it and use a fresh one. Do not let the patient go near an open door or window, or lie in a draft.

Give quinine every four hours to keep up the strength, or, if much fever, every three hours. Give plenty of ventilation, and let the patient partake freely of fruits, both raw and cooked, new milk and cream.

Graham mush, oatmeal gruel, crackers, and soups of beef, chicken, squirrel, etc. If the patches ulcerate use sumach and wild indigo as a gargle.

We have had diphtheria in our family four different times. I slept with the children each time and never took it from them. But after all everything depends on taking the disease in its first stage; I do not dread the disease any more than tonsillitis, unless inflammatory croup should set in; then summon a physician at once, for you will need all his skill and your own combined. But anyone who will treat diphtheria faithfully by these directions will never regret it.

### Home Attraction.

Life on the farm is often considered dull and monotonous, but the discontent of farm life is generally the result of a mistake made by the farmers in not having something to attract the mind and heart. Every home should be supplied with books and the leading papers of the day. The children should be taught to read story books when they are young, and thus acquire a taste for reading. Parents should have a library as large as can be afforded, and the leading journals of the age, not forgetting the county newspaper. It is criminal neglect not to supply a family with reading matter.

The home is not complete without a musical instrument, piano or organ. Music will refine and elevate the mind, and in the hours of despondency there is nothing so cheering to the

heart as the inspiring song. "Music hath charms to soothe and tame the savage breast." There are few young people but have the talent to sing or play on an instrument—they only need cultivation to make them proficient.

The conversation should be such as to attract and instruct; talk of what is read and the topics of the day. Discard "gossip," so ruinous and destructive to communities and homes. Have a few good engravings. Have nothing to do with cheap chromos. If there was more money spent on sound literature, music, engravings, and less on foolishness, fancy watches, pistols, jewellery, fine clothes, cheap novels, etc., in time to come, we could expect our happiest and most attractive homes, where contentment reigned, to be among our Canadian farmers.

### Self-Control.

In some people passion and emotion are never checked, but are allowed to burst out in a blaze whenever they come. Others suppress them by main force, and preserve a callous exterior when there are raging fires within. Others are never excited over anything. Some govern themselves on some subjects, but not on others. Very much can be done by culture to give the will control over the feelings.

One of the very best means of culture is the persistent withdrawing of the mind from the subject which produces the emotion and concentrating it elsewhere. The man or woman who persistently permits the mind to dwell on disagreeable themes only spites him or herself. Children, of course, have less control, and parents and teachers must help them to turn their attention from that which excites them to something else; but adults when they act like children ought to be ashamed of themselves. The value of self-control as a hygienic agent is very great. It prevents great waste of vitality in feeling, emotion and passion. It helps to give one a mastery over pain and distress, rather than it over us.

### Steady Girls.

A blessing on the steady girls! Stores of happiness will surely come to the gay, cheery maidens who stand side by side with mother and neighbors all through the sieges of spring and summer sewing, putting up fruit and cooking for harvesters. Then with what zest they turn from household tasks to the school-room, as apt pupils or pleasant school-ma'ams for the winter! Farmers' daughters ought to be the most accomplished and the happiest in the world. To them house-keeping has chimed in with childhood's plays until it is all beauty and rhythm, not prosy rounds of care, and knowing that they have mastered woman's first—not second—duty, the knowledge of caring for a home, they may give undivided attention to such education and accomplishments as they desire. The first duty is to learn to care for themselves, to know how to keep well and strong, then they may live more truly to bless others. They are a thousand times happier than the listless fashion belles who pity those "hard-working" girls.

Japan maples are coming to be the leading ornamental shrubs and dwarf trees. They prove to be quite generally hardy in the North



**NEW ADVERTISEMENTS.**

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:**

Will be furnished on application, and manufacturers, seedsmen, stock breeders and others will find this journal an unrivalled advertising medium.

The FARMER'S ADVOCATE has the largest circulation among the best people in Canada. Its advertisements are reliable and are read.

**PUBLIC SALE**

**SHORTHORNS & HIGH-BRED GRADE CATTLE**

The undersigned will sell on  
**WEDNESDAY, FEBRUARY 27**  
ON LOT 19, CON. 4, WESTMINSTER,

Five miles South of London :-

**Six Shorthorn Cows and Heifers, Two young Bulls, 20 high bred Cows and Heifers, 3 yearling Steers.**

This Sale closes out the whole of our high-bred grade cattle, which we reluctantly have to sell, being overstocked, many having been prize-winners. We also add a few very useful Shorthorns of good quality, registered in B. A. H. B. The cows will have calves at foot, or be forward in calf to Imported "Prince of Northumberland." Conveyances will be in waiting at the Grigg House, London, to take intending purchasers to the Sale. Catalogues, the day of the Sale.

**FRANK R. SHORE,  
W. S. HAWKSHAW.**

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**BY AUCTION**

Credit Sale of Durham Cattle,  
**MARCH 20th, 1884.**

About 25 head of Shorthorn Cattle, more than half of them imported. A number of young Bulls, some of them imported, also one imported Clydesdale Stallion, rising three years.

Sale to commence at one o'clock, on the 20th of March, 1884, at my Farm, one mile east of the town of St. Marys, on the Grand Trunk Railway. Catalogues will be issued shortly, and will be sent on application. 8 months' credit, on satisfactory notes 7 per cent. discount for cash. Parties wishing to be met at station must send card to proprietors.

**LANG & THOMPSON, Props.**

Drawer D, St. Marys, P.O., Ont.

**GREAT CREDIT SALE**

**PUBLIC AUCTION,**

**WEDNESDAY, FEB. 20, 1884.**

The property of George Miller, Riggfoot Farm, Markham P.O., Ontario.

**Twenty Shorthorns, Ten Cows and Heifers, and Ten Bulls.**

**Fifty Cotswold Ewes, in Lamb to Imported ram.**

**Twenty-five Berkshire Swine.**

Catalogues on application.

Markham is twenty miles from Toronto, on Midland Railway.

218-a

**Ayrshire Cattle FOR SALE.**

Several very fine young animals, male and female, worthy of purchase by those who desire to improve their dairy herds. They are bred from some of the best animals imported from Scotland, and from prize takers Apply to the undersigned, proprietor of the celebrated Plantaganet Springs, and Centennial prize Ayrshire Stock Farm, at Plantaganet, Ontario.

218-c

**WILLIAM RODDIN.**

**LITTLE FALLS CREAMERY FOR SALE.**

This Desirable Property is now offered  
**FOR SALE BY TENDER**  
UP TO FRIDAY, THE  
15th Day of February, 1884,  
OR BY PUBLIC AUCTION ON THAT DATE.

This is a splendid opening in a good district, of easy access to Toronto and Hamilton, being from 1 to 3 miles of three railway stations, and 3 miles from Georgetown. For description of property and information, write to  
**H. M. WATSON,**  
Georgetown, Ont., Canada.

217-b

**\$1000 FOR VEGETABLES I OFFER TO MY CUSTOMERS A THOUSAND DOLLARS For the LARGEST CROPS of VEGETABLES and GRAINS. My Catalogue (sent free) will give all the details. James J. H. Gregory, Harbichhead, Mass.**



Will be mailed FREE to all applicants and to customers of last year without ordering it. It contains illustrations, prices, descriptions and directions for planting all Vegetable and Flower Seeds, Plants, etc. Invaluable to all.  
**D. M. FERRY & CO. WINDSOR, Ont.**

217

**SEEDS**

**RENNIE'S SEEDS** are the BEST in the MARKET, and may be sent by Mail to any part of Canada or the U. S. MY ILLUSTRATED CATALOGUE FOR 1884 containing description and prices of the choicest kinds **FIELD GARDEN & FLOWER SEEDS** mailed FREE to all intending purchasers on application. Every Farmer, Gardener and Florist should have a copy before ordering their supplies for the coming season. It is the handsomest Catalogue published in Canada.  
**WM. RENNIE SEEDSMAN, TORONTO, ONT.**

217-

**LINSEED CAKE**

—AND—

**LINSEED CAKE MEAL**

The Best Food Known for Stock. For sale by the Manufacturers. Quality guaranteed pure. Quotations for any quantity sent on application.

**Wright & Lawther Oil and Lead Manfg Co.**

200-7

Chicago, Ill., U. S. A.

**Commercial.**

THE FARMER'S ADVOCATE OFFICE,  
London, Ont., Feb. 1, 1884.

The past month has been one of universal severity, with plenty of snow, with a good deal of drifting, making the country roads in some parts almost impassable. The movement in produce is light.

**WHEAT.**

This article keeps very low, and there seems little prospect of much advance till the enormous amount for passage has been very largely reduced.

When the abnormally heavy stocks of wheat in sight on this continent and in Europe are taken into consideration, the severe depression which has so long characterized the breadstuffs markets throughout the world ought not to create any surprise. The stocks of wheat in most of the ports in the United Kingdom have been taken, and in eleven of the principal ones they aggregated on the first of the present month 22,886,960 bushels, against 12,644,104 bushels a year ago, and 8,568,536 bushels the year previous. Heavy stocks also existed at Rotterdam, Antwerp, Hamburg, Havre and other European ports. This, however, is not all, for besides the above totals there are heavy accumulations of flour, which are mostly composed of low grade American, the disposition of which is causing considerable perplexity. On passage to the United Kingdom there are about 17,000,000 bushels of wheat against 18,000,000 bushels last year, and on this continent there are in sight in round figures about 34,800,000 bushels against 21,000,000 bushels a year ago. In brief, we have a total visible supply in England, the United States and Canada, and on passage to Europe, of about 76,600,000 bushels, against only about 55,200,000 bushels a year ago, showing the large increase of 21,600,000 bushels.

Mark Lane Express, January 7, says :- "The average price of English wheat is now below its cost of production, but it is useless to disguise the fact that there is nothing to prevent it going still lower. The price of English wheat must now be ruled by the price at which wheat in sparsely populated wheat growing countries can be laid down in our port markets; and the reduction that is now going on in railway freightage in India and Russia, together with the development of wheat growing in the American and Canadian Northwest, the Argentine Republic, in Australia, on the Pacific slope of the American continents, and in what are now minor sources of supply, amounts to overwhelming evidence to the effect that if there is any logical or economic bottom limit to the price at which wheat can be sold in our markets, it has not yet been reached."

The British Farmer says :- "The principal cause of the depression in wheat is to be found in the irrefutable statistics which Mr. William Harris recently laid before the Free Trade League. Which ever way they may make for, fair or free trade, they are of themselves beyond dispute. Now, these statistics show that, making every allowance for every reasonable deduction, the average wheat production of the world exceeds its average wheat consumption as a breadstuff by at least 10,000,000 quarters

(Continued on page 58.)

(80,000,000 bushels). Now, we cannot go on storing away a thousand million quarters loaves per annum. So long as the attempt continues to be made the markets may be expected to be depressed, and the prices below the level of remunerative returns. The end, however, is clear; either the production will have to be reduced, as in the case of coal, iron, cotton and other articles with which from time to time the markets have been glutted, or else wheat will have to be used as a feeding stuff as well as a breadstuff, but it is not on the whole likely that wheat will be able to do anything serious against the cheap production of oats and barley. The final conclusion must be that wheat production will have to call halt and wait for the increased population to overtake it."

The New York Post gives the following extracts from letters just received by an exporting house of that city, which serve to show the depressed condition that existed in the British markets at the time of writing:—

From London—"America has been completely wrong with regard to our markets. We have not only done without her assistance, but we have the largest stock ever known. Our trade is entirely demoralized. W— hold so heavily of flour that they are obliged to give it to other factors to sell and they are taking almost any bid made them. London is now relatively the cheapest market in the world. Our classed flour is a perfect drug, as common wheats are so extremely cheap. New Zealand, in fair condition but somewhat grown, are selling at from 32s. down to 26s. per 496 pounds, and good East Indian wheats at 34s. per 496 pounds in perfect condition."

From Glasgow—"Flour is being slaughtered tight and left. One thousand sacks straight Minnesota were sold yesterday at 29s. per 280 pounds, usual credit terms. Other kinds are selling in the same proportion. A large quantity of flour is held here by parties who cannot finance it themselves, and it will be thrown on to the market very soon if things do not take a turn."

From Newcastle—"Supplies of wheat and flour are greatly in excess. All late shipments into this market will lose heavily."

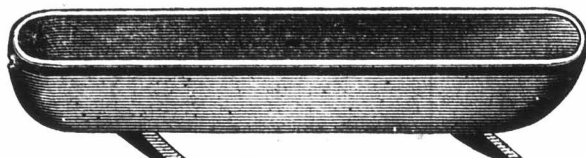
**PEAS.**  
The price of peas has declined somewhat in the English markets, and prices on an export basis would fall a good way below that asked by holders. No doubt a large percentage of them will be wanted for feeding purposes.

**CLOVER SEED**  
Has ruled very quiet the past month and prices are much easier. We fancy those who thought that clover seed would go to ten or twelve dollars will be somewhat disappointed. Clover seed is quoted at \$5.75 in Toledo this week.

**CHEESE**  
keeps creeping up, and stocks seem to be in very few hands. The only danger is that holders may put prices too high, and thereby stop consumption.

**BUTTER.**  
The following card, just received by New York butter dealers, exemplified the competition which off grades of butter meet with in the shape of butterine:—

Brooklyn, N. Y., January, 1884.  
Gentlemen, —We beg to call your attention  
(Continued on page 59.)

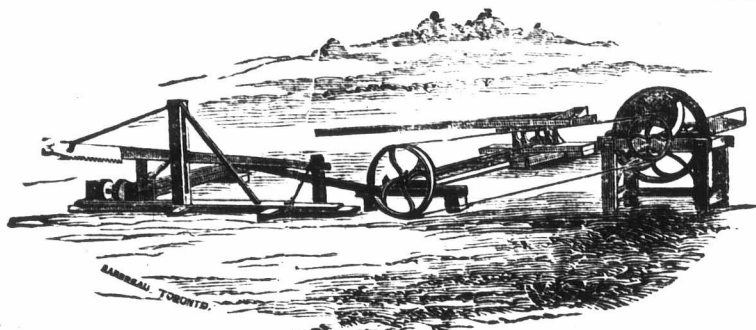


CAST IRON HOG TROUGH. PRICE, \$3.50.  
Made also with Divisions in Trough.

**B. G. TISDALE**  
BRANTFORD STOVE WORKS  
BRANTFORD, ONT.

Only Manufacturer in Canada of a complete line of **IRON STABLE FITTINGS.**  
Send for illustrated Catalogue and Price List. 214-y

**PATENT COMBINATION SAWING MACHINE.**



This machine, which has had such an extraordinary run, is freely admitted to be the best two-horse Sawing Machine yet brought into the market. The favorite two horse sawing machines in use previous to this were the Totman and Richardson. This Machine embraces all the better qualities of those two machines combined, the driving gear being similar to the Totman, and the driving shaft of the Richardson being substituted for the driving pitman of the Totman, thus doing away with the obnoxious platform, or Pitman Box. At the end of the driving shaft is a pulley, by which, with the assistance of a belt, either a Circular Saw, Grain Crusher, Straw Cutter, or any other Machine requiring such power can be worked.

We are, however, still making the **RICHARDSON SAWING MACHINE**, for the convenience of those who require a cheaper machine, and on account of its good working and durable qualities, combined with its cheapness. We have filled a large number of orders for this Machine, and are still making them.

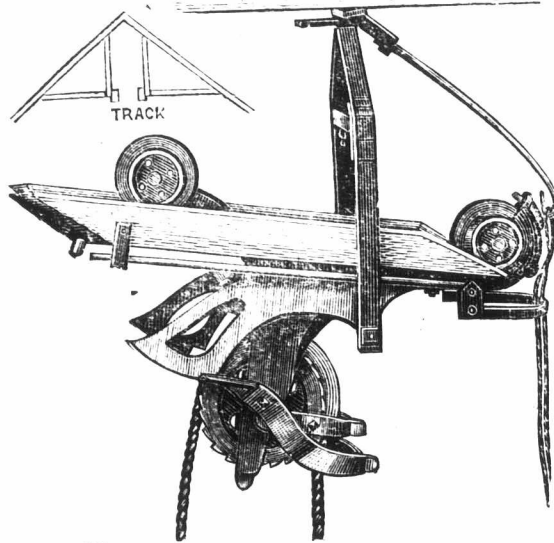
We also make the **BRUCE SAWING MACHINE**, which can be driven by any power, from four to ten horse, or by steam power.

For prices and full particulars, address

**JOHN RUSSELL & CO., Ingersoll, Ontario.**

Manufacturers also of Improved Patent Hay Loaders, Ingersoll Reapers and Mowers, Field and Corn Cultivators Land Rollers, Straw Cutters, Grain Crushers, Circular Saw Tables, &c., &c. 218-a

**THE TURN-TABLE AND CAR.**

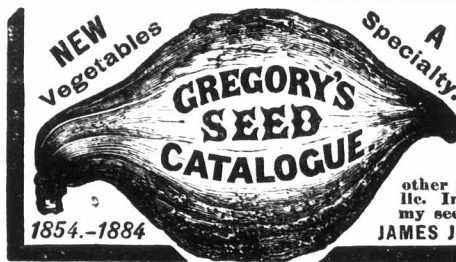


**CHAMPION HAY AND GRAIN UNLOADER, IS THE BEST OUT!**

It unloads all a farmer grows: long or short, loose or in sheaves.  
It unloads uniformly in 3 to 6 minutes.  
It does it easily and never fails to get a draft.  
It leaves no littering on floor or wagon.  
It takes a load off at 3 or 4 drafts, as you like it.  
It has a turn-table, for turning car without leaving barn floor.

Write for Circulars. Will send on trial to any responsible party. AGENTS WANTED.

**T. G. GILLESPIE,**  
CAMPBELLFORD, ONT.



**NEW Vegetables Specialty. A GREGORY'S SEED CATALOGUE 1854-1884**  
My Vegetable and Flower Seed Catalogue for 1884, the result of thirty years' experience as a Seed Grower, will be sent free to all who apply. All my Seed is warranted to be fresh and true to name, so far that should it prove otherwise, I agree to refill orders gratis. My collection of vegetable Seed, one of the most extensive to be found in any American Catalogue, is a large part of it of my own growing. As the original introducer of Eclipse Beet, Burbank Potatoes, Marblehead Early Corn, the Hubbard Squash, and scores of other new Vegetables, I invite the patronage of the public. In the gardens and on the farms of those who plant my seed will be found my best advertisement.  
**JAMES J. H. GREGORY, Seed Grower, Marblehead, Mass.**

**S. L. ALLEN & CO.**  
127 & 129 Catharine Street Phila.

**NEW TOOLS** we offer this season, together with recent improvements, place the "PLANET Jr." Farm and Garden Implements beyond all competition.  
**NEW CATALOGUE** containing 32 pages and over 40 illustrations, describing fully the "PLANET Jr." Horse Hoers, Cultivators, Seed Drills, Wheel-Hoers & Potato-Diggers.



SEND NOW, if you are interested in Farming, Gardening or Trucking, for our New Catalogue containing 32 pages and over 40 illustrations, describing fully the "PLANET Jr." Horse Hoers, Cultivators, Seed Drills, Wheel-Hoers & Potato-Diggers.

RELIABLE SEEDS

FARMER, MARKET GARDENER & FLORIST.

which are unexcelled and guaranteed to be the best procurable.

SEEDS

PEARCE, WELD & CO., LONDON, ONTARIO.

Imperial Hybrid, New Potatoes, Morning Star, and Pride of Canada, and all of the standard Grains, Grasses and Vegetables grown.

IMPORTANT TO ALL OWNERS OF A

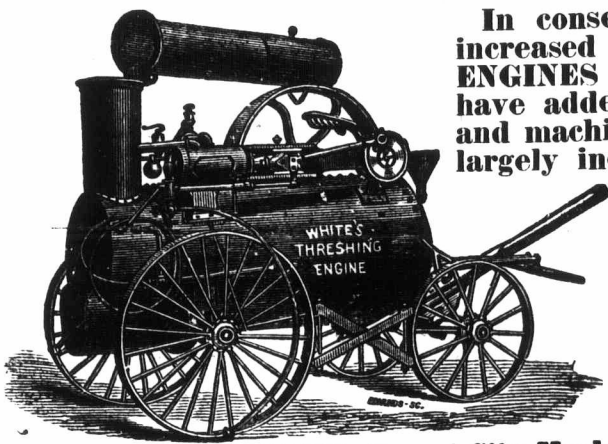


Empire Horse and Cattle Food is now used by the principal breeders and feeders of live stock; a proof of which was seen at the Exhibitions.

EMPIRE HORSE & CATTLE FOOD CO., Mitchell, Ont.

FAY Currant CRAPES ALL BEST, NEW AND OLD.

SMALL FRUITS AND TREES. LOW TO DEALERS AND PLANTERS. Stock First-Class. Free Catalogues. GEO. S. JOSSELYN, Fredonia, N. Y.



In consequence of the increased demand for my ENGINES in Ontario, I have added to my shops and machinery, and shall largely increase the production of Engines for 1884.

Farmers and Threshers please give this Engine a trial. It is licensed by all Insurance Co's, and has proved itself to be the most durable.

The Engine for the Northwest is made to burn either coal or wood.

GEORGE WHITE, Forest City Machine Works, LONDON, ONTARIO, CANADA.

FOR A SUCCESSION THE ENTIRE SEASON PLANT... AMERICAN WONDER, ABUNDANCE, BEARING PEAS

Pea, Bliss' Abundance.—90 pods counted on a single plant. Very productive, 15 to 18 inches high. Second Early. Excellent quality. 25 cents per packet; 5 packets, \$1.00.

to our Albion fraud of creamery butterine, which we are manufacturing now, and meets with such great success amongst the trade.

Price list for butterine tubs and prints: 60, 40 and 25 lb Ash and Spruce Tubs... 14 1/2c; One-half Firkins and Jamestown Pails... 15c; 40 lb round prints, in cases... 15 1/2c; 52 lb square prints, in cases... 15 1/2c; 50 and 30 lb, 1 and 2 lb rolls in tubs... 15 1/2c.

Respectfully yours, Brooklyn Dairy Co., Manufacturers of fine grades butterine. Commenting upon the above, David W. Lewis, of New York, say:—“Our domestic markets are full of these imitation stuffs, which are forced off on dealers after the fashion of this card, under promises to take it back if it doesn't suit, and the English markets are supplied with butterine from America and “bosh” butter from Denmark, until they are surfeited with it.

THE FARMERS' MARKET.

Toronto, Feb. 2.

The receipts of grain to-day were moderate and prices steady. About 500 bushels of wheat offered and sold at \$1 to \$1.04 for fall, \$1.05 to \$1.10 for spring, and 80c to 82c for goose.

PROVISIONS, ETC.

The market to-day was quiet, and prices as a rule steady. In Liverpool there was an advance of 3d in lard and 6d in bacon. The Chicago markets were unsettled; pork closed at a decline of 20c to 25c as compared with yesterday, and lard 7 1/2c to 10c lower.

BRITISH MARKETS BY WIRE.

Cattle Steady—Sheep Lower.

LIVERPOOL, Jan. 28, 1883.

Table of market prices for cattle and sheep. Cattle: Choice steers... 15 1/2; Good steers... 15; Medium steers... 14; Inferior and bulls... 9 1/2 @ 11 1/2. Sheep: Best long woolled... 15 @ 17; Seconds... 14 @ 15; Merinos... 8 @ 10.

## SPECIAL NOTICES.

The Agricultural and Arts Association have decided to offer prizes for Essays on various subjects as follows:

1. On the profit of breeding, feeding and fattening beef cattle for the market founded on practical experience. First prize, \$30; second prize, \$20 (the manuscript not to exceed twenty-five pages).
2. For the best and most speedy method of destroying thistles. First prize, \$15; second prize, \$10.
3. For the best and most speedy method of destroying wild mustard. First prize, \$15; second prize, \$10.
4. For the best and most speedy method of destroying wild oats. First prize, \$15; second prize, \$10.
5. For the best and most speedy method of destroying quack grass. First prize, \$15; second prize, \$10. Manuscript must not exceed twenty pages.

Manuscript must be sent to the secretary not later than the first of August next.

Prizes will be awarded by the Agricultural and Arts Association for the best managed farm in Group No. 5, comprising the following Electoral District Societies, viz:—Addington, Frontenac, Hastings North, Hastings East, Hastings West, Lennox, Northumberland East, Northumberland West, Peterborough East, Peterborough West, Prince Edward, Renfrew, Victoria North, Victoria South.

Any farmer desiring to compete must make his application in writing to the Secretary of the Agricultural Society of his district on or before 1st May each year, upon which said society may call a meeting for the purpose of deciding which of the applicants shall be returned to this Association; but no society shall return more than three competitors.

(Advertisement).

## Why Is It?

Why is it that in a western city of Ontario a number of mineral substances were kept on the counter of a firm in the food line, with the allegation that they were extracted from a bag of Thorley's Improved? manufactured in Hamilton, that had fallen into their hands by mistake, and used for the purpose of maligning the Hamilton Food and of injuring a company that was not harming or molesting them in any way?

Why is it that every Food Company of any note in the Province is driven to the necessity of so manufacturing their goods that they can put them on the market at a less price per pound than the Thorley Improved?

All the above has been done, and with a persistency worthy of a better cause. We can give facts to those desiring them.

## FACTS ASKED FOR.

The above clipping from the Stock Journal, published at Hamilton, fell into our hands a short time ago. We judge from the above we are the Food Company alluded to. This article states:—A bag of food, manufactured at Hamilton, had fallen into our hands by mistake from which certain mineral substances were extracted, and kept on our counter, exposed to view, for the purpose of maligning the Hamilton Co. We say the statement is untrue; we give the facts, which we are prepared to prove at any time the Hamilton Co. may set to meet us in the City of London:—A bag of food was shipped by the Hamilton Co. to one of their customers, and we have in our possession some of that food sent us by the party to whom it was shipped, and any substances we have said it contains it does contain, and are plainly visible in the food, and have not been extracted by us, and the evidence and food can be produced at any time asked for. We believe the above clipping has been freely circulated for the sole purpose of leaving a false impression on the public mind with regard to the London Food Company and their feeds. The article asks why every food company is driven to the necessity of so manufacturing their goods that they can be put on the market at a lower price than the Thorley Improved. In reply we say we are not driven to any such necessity, but if we can put a superior food on the market at a lower price we have a perfect right to do so, and claim the right to manage our own business. We further say that the HERBY CLIMAX, manufactured by the London Food Co., does not contain any of the following ingredients:—Arsenic, sulphur, antimony, saltpetre, copperas, wild hemlock or such like, to which our affirmation has been filed in this city, and is the only affirmation made to the purity of feeds by any company in the Dominion. We offer \$1,000 to any one who will find any of the above ingredients in our feeds, as manufactured by us, or any other injurious ingredient, either of a mineral or vegetable nature; and our feeds are safe to feed to stock of all ages, in all conditions, and through all climatical changes.

LONDON FEED COMPANY, London, Ontario.

## GRAND TRUNK RAILWAY OF CANADA

TRANS-CONTINENTAL ROUTE TO

MINNESOTA, DAKOTA, MONTANA  
MANITOBA AND BRITISH  
COLUMBIA.

PASSENGERS to the rich wheat-producing lands of the Northwest, and the Agricultural and Mining Districts of British Columbia, will find the cheapest and best route via the Grand Trunk Railway of Canada.

THIS IS THE LEGITIMATE ROUTE TO THE NORTH-WEST, affording a continuous trip and making direct connection with the Steamer lines from Sarnia and Collingwood, and by rail through to all points in the Northwest, West, and South-west.

## THE GRAND TRUNK RAILWAY,

with its powerful and direct connections, and extensive and continuous through line, is THE FAVORITE ROUTE, and can be relied upon. The very best rates will be quoted for freight, passage, live stock, effects, and extra baggage, for emigrants; also for individual emigrants.

It has deservedly gained the reputation of being an exceptionally desirable route for bodies of emigrant settlers. Special attention has been paid to this business, both as regards cars, train service, accommodation en route, and instructions to employees to treat parties and holders of our tickets with courtesy and attention.

Apply for full information to Agents at the Offices of the Grand Trunk Railway.

JAS. STEPHENSON, JOSEPH HICKSON,  
217-f General Pass. Agent. General Manager.

## NOTICE TO DAIRY AND CHEESE FACTORY MEN.

I am manufacturing Cheese Vats and Dairy Utensils, also the

## STEVELY IRON-GLAD MILK CAN,

which for strength and durability surpasses all others. Orders solicited. Prices on application.

WM. STEVELY,  
218-b 262 Richmond St., London, Ont.

## IT WILL PAY YOU TO GET

our 1884 Catalogue of SMALL FRUITS

all kinds. Ford's EARLY SWEET CORN, sweetest and best. Early Colton Apple, best quality, hardy in Wis.

OUR NEW POTATO Lee's Favorite, extremely early best quality, most productive, 265 lbs. grown from one. Catalogue free.

218-b Address, Frank Ford & Son, Ravenna, Ohio.

BROWN'S  
PATENT HAY LOADER.

Since the first introduction of the Hay Loader, each succeeding year has added every evidence of its practicability, and it is now considered one of the greatest labor-saving machines of the age. It requires no extra men or horses, being attached to the rear of the wagon, and operated by the same team that draws the load, adding to the draft the power of one man. It will load a ton of hay in five minutes, taking it up as clean as can be done with a fork. Although originally intended to run on hay raked in wind-rows, it may be used in heavy untraced hay, and will work equally as well in all kinds of loose grain, especially barley. For price, testimonials, and all particulars, address

JOHN RUSSELL & CO.,  
Proprietors Ingersoll Foundry and Agricultural Works,  
INGERSOLL, ONT.,  
Manufacturers of the Ingersoll Reaper, Ingersoll Mower, and all kinds of Agricultural Implements. 218-f

## RUSSIAN MULBERRY

The best Fruit, Timber and Ornamental Tree in America.

RUSSIAN APRICOT, DWARF JUNE BERRY,  
M'CRACKEN BLACKBERRY.

Also the best SILK WORM EGGS and a complete text book on silk culture. Send for a price list. Address

CARPENTER & GAGE,  
218-y Bower, Jefferson Co., Neb., U.S.A.

1884—SPRING—1884.

Now is the time to prepare your orders for NEW and RARE Fruit and Ornamental Shrubs, Evergreens, ROSES, VINES, ETC. Besides many desirable Novelties; we offer the largest and most complete general Stock of Fruit and Ornamental Trees in the U. S. Abridged Catalogue mailed free. Address ELLWANGER & BARRY, Mt. Hope Nurseries, Rochester, N. Y.

## TREES

## SEEDS! RELIABLE SEEDS!

OUR DESCRIPTIVE PRICED CATALOGUE, beautifully illustrated, containing all necessary information for the successful cultivation of Vegetables, Flowers, Field Roots, Potatoes, etc., is now published, and will be mailed free to all applicants.

JOHN A. BRUCE & Co.,  
218-b Seed Growers, Hamilton, Canada.

HE THAT SOWETH  
WILLIAM EVANS' SEEDS  
SHALL REAP IN ABUNDANCE.

If my Seeds are not sold in your town, send for my Illustrated and Descriptive Catalogue. Mailed free to all applicants.

WILLIAM EVANS, SEEDSMAN, MONTREAL.  
Established 1855. 218-b

OUR ELEGANT  
125 Page Illustrated  
POULTRY CATALOGUE

For 1884 will be ready this month. It tells more about poultry and poultry raising than any \$2.00 book in the United States. It tells how we keep 500 fowls on two and one-half acres, and annually clear \$1,700. PRICE, 25 CENTS. Stamps taken. Free Lists free. (Mention this paper.) R. B. MITCHELL & CO., 24 McCormick Block, Chicago. Send in your orders that we may know how many to publish.

## EXTRA ONION SEED!

EXTRA, because grown by myself from the very choicest onions, selected from a crop which took the first premium in Essex County, Mass., famous for raising the finest onions in the United States. Early Yellow Globe Danvers, per lb by mail, \$1.65, Danvers Early Red Globe, \$1.65, Early Red and Yellow Flat or Cracker, \$1.65, and Large Red Weathersfield, \$1.40, Danvers Early Red Globe is both the earliest, the greatest cropper and the handsomest of all the Best Onions. Seed of my own raising for premium stock. Try it farmers! My Seed Catalogue FREE to all. James J. H. Gregory, Marblehead, Mass.

## PATENTS

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## PUBLIC NOTICE.

THE ANNUAL CONVENTION OF THE  
DAIRYMEN'S ASSOCIATION,

OF WESTERN ONTARIO for the year 1884, will be held at the

City Hall, in the City of London,

—ON THE—

13th, 14th, & 15th of February.

Arrangements are being made with the Railway authorities to have the usual reduction of fares to members attending, who, on application to the Secretary, and stating what road they wish to travel on, will be furnished with certificates accordingly.

By order,  
C. E. CHADWICK, Secretary.  
Secretary's Office, Ingersoll, Jan. 7<sup>th</sup> 1884. 217-b

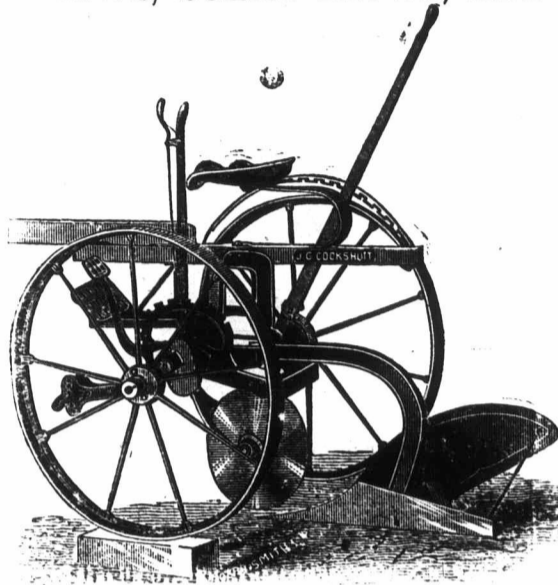
# COCKSHUTT PLOW CO'Y. (LIMITED.)

MANUFACTURERS OF CHILLED AND STEEL PLOWS, SULKY PLOWS, AND PRAIRIE BREAKERS.

This Cut Represents our

## "BRANTFORD" SULKY PLOW

which is the same pattern as the celebrated BROWNE Sulky. We furnish it with both Prairie Breaker or old Ground Bottoms and Rolling Coulters.



Warranted Equal to the Best.

We are the only manufacturers in the Dominion of Canada who have made and sold, and have during the past season placed Sulky Plows in the farmers hands of their own manufacture. We are therefore the pioneer Sulky Plow makers of Canada. CASH CUSTOMERS going to the North-west will consult their interests by seeing our Plows before buying elsewhere. We are also establishing a branch office in Winnipeg.

Send for Circulars to

**COCKSHUTT PLOW Co'y**

(LIMITED.) 218-d

Brantford, Ont., or Winnipeg, Man.

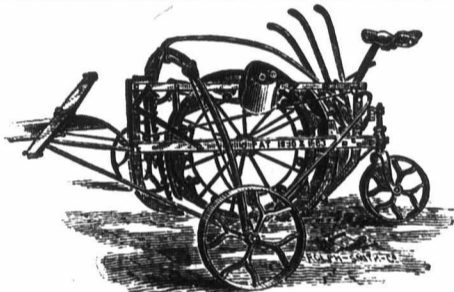
## WHITE FIFE.

Two hundred bushels of White Fife Wheat for sale. Apply to **J. B. LANE,** DORCHESTER STATION, Ont.

## MARLBORO RED RASPBERRY

Send to the originators for history and terms. **A. J. CAYWOOD & SON,** Marlboro, N. Y.

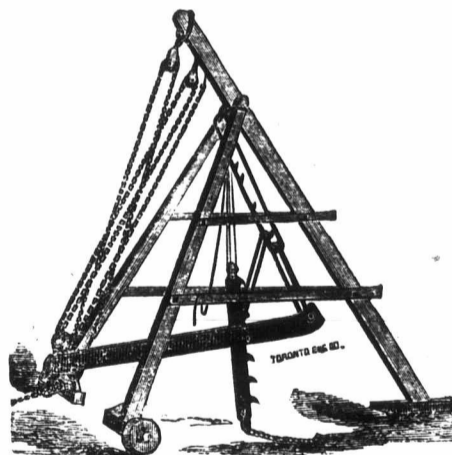
218-d



## DITCHING MACHINE, FOR UNDERDRAINING.

Will do more work than 30 men with spades. Guaranteed to give satisfaction. Send for Circular. **W.M. RENNIE,** SOLE MANUFACTURER, TORONTO, CANADA.

PROCURE THE BEST.



### The Whitfield Stump Extractor.

The superiority of this machine consists in the rapidity and ease in which it can take out the largest stumps; the ease with which it is operated by man or beast, and the great strength and durability of this machine. It leaves no holes to fill up, nor any stumps or snags in the ground. Send for circular of testimonials and particulars about it before purchasing an inferior machine.

**JOHN WHITFIELD,** Dominion Chain Works, Front Street, Toronto.

202-M

## VIRGINIA FARMS & MILLS

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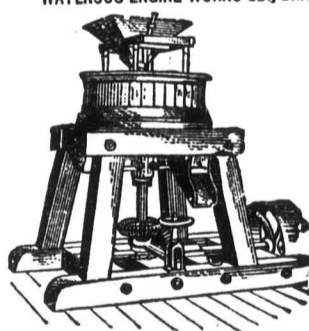
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218-d

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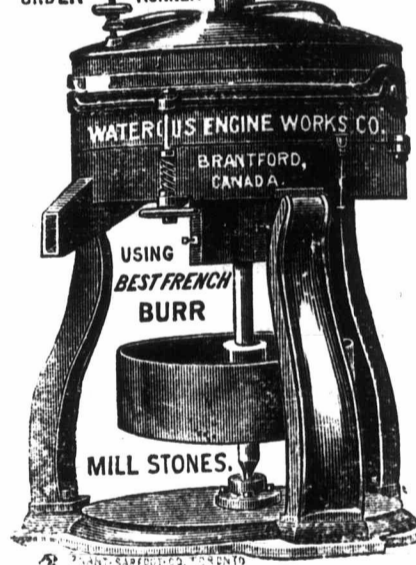


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embraces every desirable Novelty of the season, as well as all standard kinds. A special feature for 1884 is, that you can for \$5.00 select Seeds or Plants to that value from their Catalogue, and have included, without charge, a copy of Peter Henderson's New Book, "Garden and Farm Topics," a work of 250 pages, handsomely bound in cloth, and containing a steel portrait of the author. The price of the book alone is \$1.50. Catalogue of "Everything for the Garden," giving details, free on application.

**PETER HENDERSON & CO. SEEDSMEN & FLORISTS,** 35 & 37 Cortlandt St., New York.

## Stock Notes.

Mr. Richard Gibson, of Delaware, has just imported five Shorthorn cattle from the Duke of Devonshire herd.

Frank R. Shore, White Oak, has purchased from Mr. James J. Davidson, Balsam, Pickering, the imported yearling bull "Duke of Guilders," of Mr. Cruickshanks' "Flora" tribe; also the heifers imported "Whin Blossom" and "Any 9th," the former of Mr. Cruickshanks' "Pure Gold" tribe.

Mr. R. H. Allen's Millburn Herd Princess Clarence, by the celebrated Bow Park bull 4th Duke of Clarence, and bought at Mr. Attrell's sale at Dexter Park, last April, has dropped a red roan heifer calf (5th Princess of Millburn) by the Grand Duke of Connaught and Ridgewood, which Mr. Attrell sold in August last, for \$10,000, to B. C. Ramsey, of Niagara Stock Farm.

W. G. Pettit, Burlington, Ont., reports the following sales of ~~Shorthorn~~ cattle:—"Duke of Mara 3rd" to John Moore, Malton, Ont.; Bull calf "Prospect" to Mathew Hall, Gill, Ont. Both sired by "Prince James 95." Mr. Pettit also reports that Mr. Fothergill has been offered a long price for "Prince James" from a leading Shorthorn breeder in the Western States.

Mr. Arthur Johnston, of Greenwood, reports business in Shorthorns very good. During the past six months Mr. Johnston has made the following sales of Shorthorns:—To Mr. Geo. Thomson, Alton, Ont., one bull calf, \$240; Messrs. J. & W. Watt, of Salem, Ont., one cow, one two-year-old heifer, and one yearling heifer, \$1,050; Mr. Jas. Watson, Greenbank, Ont., one bull calf, \$225; Mr. Wm. Lent, of Ohio, one three months' bull calf, \$125; Mr. Shier, of Sunderland, Ont., one aged cow, and pair of twin heifer calves, \$850; Mr. D. Birrel, at the Toronto sale, one bull, \$375; Mr. J. B. Conboy, Belfountain, Ont., one yearling bull, \$210; Hugh Thomas, of St. Marys, one eight months' bull calf, \$360; Mr. Joseph Gardhouse, of Malton, Ont., one yearling bull, one yearling heifer, and one eleven months heifer calf, \$1,000. Total sales of Shorthorns for six months, \$4,435.

T. Guy & Son, Oshawa, report the following sales of Ayshire cattle:—To Messrs. Brodie & Son, Rural Hill, N. Y., yearling bull "Stanley" [1471]; to Mr. A. Terrill, Weller, Ont., the second-prize bull calf "Victor" and yearling heifer "Jenny" [1557]; to Mr. John Gildner, Berlin, Ont., yearling bull "Duke of York" [1448] and yearling heifer "Maid of Athol 2nd" [1556]; to Rev. W. K. Burr, M. A., Belleville, Ont., first-prize two-year-old bull "Sir Garnet" [180], vol. 2, and first-prize two-year-old heifer "Spotted Butterfly" [226], vol. 2; to Rev. John B. Armstrong, Orillia, Ont., the prize heifer calf "Beauty Bride"; to John Murray, Molesworth, Ont., bull calf "Governor" Wallace [18], vol. 2; to Messrs. Smith Bros., Fairfield Plains, Ont., two-year-old heifer "Pansey 2nd" [144], first prize two-year-old heifer "Gurta 5th" [273], with calf at foot and first prize heifer "Empress" [1550].

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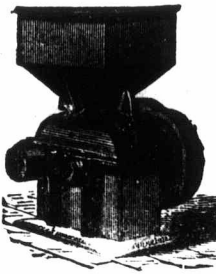
Farmers and others who either wish to import, or export, or purchase horses, or any other live stock, would consult their own interest by first applying to the Stock Exchange, as this firm can procure and supply animals better and cheaper than farmers can import for themselves.

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These Mills save time, grind any kind of grain very fast and without heating. Larger size Mills working on same principle with different style of cutter, grinding phosphates, gold and silver ores, quartz, plaster, clay, bones fish-scrap, bark, &c., &c.  
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THE CHEAPEST  
FORCE PUMP  
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The Pullman cars which leave Montreal on Monday, Wednesday and Friday, run through to Halifax without change, and those which leave Montreal on Tuesday, Thursday and Saturday run through to St. John, N. B., without change.

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DR. W. E. WAUGH, OFFICE The late Dr. Anderson's, Ridout Street, LONDON ONT. 195-4

Special Notices.

The Canada Pacific Railway intend carrying, this spring, red Fife seed wheat westerly bound free of charge, which will be a great boon to new settlers in the Northwest.

We have received several complaints about the Monarch Lightning Sawing Machine Company. We beg to draw the attention of our readers to the remarks at the head of our advertising columns.

We have received from the publishers of "Picturesque Canada" Parts 1 to 26 of their work. This pleasing series is now well known by the people of Canada, and deserve a generous support from its great cost and excellent engravings, with the interesting letter press accompanying each sketch. To the lovers of the beautiful, and as a memento of charming spots of scenery visited, these numbers are exceedingly valuable.

In this issue you will see six new advertisements of rather peculiar coincidence. First is the stock of H. M. Cochrane, who has gained the highest reputation as being the Canadian Cattle King, his large transactions and the reputation of his stock having given him a name extending from Europe to Australia, also among the ranchmen on the Pacific slope.

The auction sale of Messrs. Lang & Thompson, of St. Mary's, deserves attention, as they have long had the reputation of being the best stock-raisers in the County of Perth, which claims to be one of the finest agricultural counties in Canada.

Also Mr. John Miller, Brougham, who is now probably the oldest Canadian importer of live stock of note in Canada, is a gentleman held in high respect wherever known.

And Mr. Richard Gibson, of Delaware, as a breeder and manager of stock, gained for himself such a reputation when in charge of the York Mills Herd, that his judgment and discernment in regard to Shorthorns is pretty near law whenever expressed. One may expect an animal worth having if procured from his herd.

Then Mr. F. Shore's auction sale in the Township of Westminster, who stands high above all other Shorthorn breeders in his township, and the Westminster farmers consider their Township Agricultural equal to any other one in Canada.

Mr. George Miller, of Bigfoot Farm, Markham. His father was at one time the most extensive importer and breeder of Shorthorns in Canada.

If you are in quest of any really good stock, turn to the advertisements and send for their catalogues.

John A. Bruce, of Hamilton, carries on an experimental and test farm, and has a long-standing and deservedly high reputation for his general garden and field seeds.

J. Simmers, of Toronto, has gained the highest reputation of any person in Canada for flower seeds. His sons now carry on this business and have an experimental plot, and are deserving of patronage.

George Keith, of Toronto, is most extensively engaged in timothy and clover, and deals in other farm seeds. He grew on his farm this year 500 bushels of Fife wheat, which he now offers for sale. We have seen no better sample this year.

W. Rennie, of Toronto, has his test farm, and deals exclusively in agricultural seeds and implements. His ditching machine is deserving of attention.

Steele Bros. & Co., of Toronto, have the most commodious buildings for carrying on a seed business in Toronto. They exhibited about 200 varieties of potatoes.

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from 3 to 60 horse-power used by farmers, threshers, cheese and butter factories, brick-makers, printing offices, cabinet and planing factories, saw mills and all purposes requiring steam power.

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Because it is made in the most careful manner, from the best selected seasoned timber.

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Because every wagon is inspected in all its parts by one of the managers of the company before being sent out.

Because it is just as represented every time.

Because "The Bain Wagon" is warranted to be well made and of good material, and any breakage occurring with fair usage within one year, by reason of defective material or workmanship, will be made good by any of their agents, upon the purchaser producing the broken or defective part as evidence.

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In Capacity, Quality of Work, Adjustability and Finish, unequalled by any.

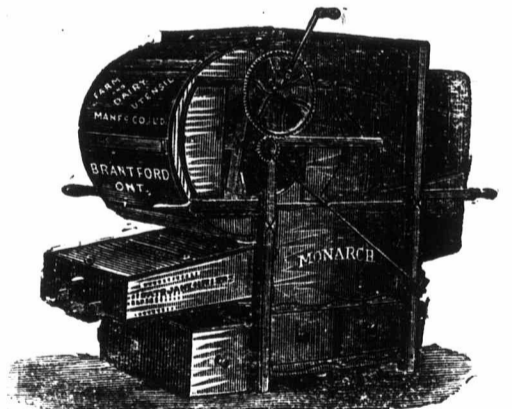
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The only Mill that gives perfectly clean seed grain.

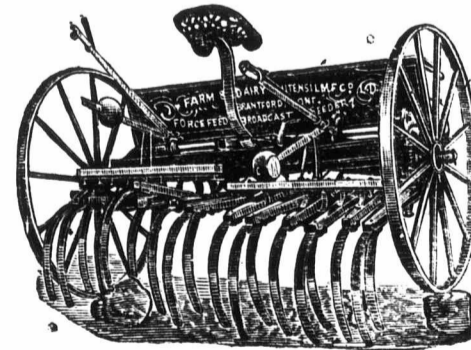
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