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Agriculture.

EXHIBITION BUILDING.

The citizens petition to the City Council was presented by Mr. Reid on Tuesday evening, when it was referred to committee, who were authorized to confer with the Government, and ascertain what amount can be had towards erecting a Provincial Building. We learn that the Attorney General is most anxious to meet the wishes of the committee in every way, and will contribute an amount that will be satisfactory to all parties, and ensure a first-class permanent building. The Attorney General will meet the City Council next Monday evening, when the arrangements will be completed, and the amount that each party will contribute definitely settled, after which the work will be pushed on with vigor.

The accounts from all parts of the Province are very encouraging. The prospect for an abundant crop of Hay has not been so great for many years, no complaint of winter killing of grass. So far as we have heard, it is a week or ten days earlier than usual, and it is equally good on highland and interval, which is very unusual. The early sown grain is also looking well, although it is rather too soon to pass an opinion on this yet. The quantity sown is very great. Early potatoes are coming up very well. Pastures never looked better at this time, and sheep and cattle have been getting a full bite for some weeks. The prospect of a good crop is promising, and it is much needed. The general trade of the country is dull, and it is more than ever felt that agriculture is the main stay of the country.

We observe that the St. John Society propose holding an Exhibition about the 1st of October, in addition to the usual entries they include the best Hay crop—entries for which must be made by July 1st.

We have not yet learned what other Societies are intending to hold shows. If the Secretary of each Society will send us notice of the doings of the Society we will have pleasure in making it public. We will also be pleased to receive notice of the meetings of the Societies. Very few meetings are held, but some part of the proceedings are interesting to other Societies, and it would have a good effect if they were published, and as we wish to make the transactions of the Societies part of our business, we will be glad if any of the officers will forward particulars of their meetings.

GROWING SWEDES AND MANGOLDS.

This is just the time to prepare for turnips, and every farmer should have a field in this valuable crop. If you have not enough manure left procure sufficient superphosphates and you will find the benefit next winter. A correspondent of the Maine Farmer on this subject writes:— "In the Farmer of April 27, 'Hendon' makes some enquiries about growing Swede Turnips and Mangolds. My method in growing the turnips is to plant on newly broken ground, as this gives smooth turnips, while if planted on old ground they are frequently worm eaten and rough. For turnips I would spread a liberal amount of dressing, and thoroughly harrow it in, with some concentrated fertilizer in the drill. There is no danger I apprehend of applying too much dressing for this or any other crop, but it is much cheaper to dress a small piece high and raise a large crop from it than to spread the dressing thin and realize to more income from the large area. Hoeing and cultivating is the cost of growing a crop. The turnips must be kept clean and free from weeds, and for this purpose it is advisable to put the rows two feet apart, and then the hoe can do the most of the cultivating.

When the turnips are coming up, sprinkle ashes on the rows to prevent the insects from eating them. They should be thinned out when small, as to never crowd one another, and this thinning process will need to be repeated several times as when it is complete the plants should be a foot apart at least. I would plant Swedes and Mangolds as early as the ground becomes dry and warm although the Swedes will do well planted later than this.

About the Mangolds the same general treatment is advisable as is given the Swede, although they require a richer soil cultivated more deeply. I have top dressed Mangolds with bon manure in mid-summer and found it beneficial. The cultivator should be used occasionally through having time and even later if possible, especially in dry weather. Clear and thorough cultivation will make up somewhat for a light rainfall and sparse manuring. As to dressing I use anything I have, say spread on some old finely pulverized dressing in the drill. Were I to buy the fertilizer to grow them with, I should try the Stockbridge fertilizer for these special

The Agriculturist.

A WEEKLY JOURNAL DEVOTED TO AGRICULTURE, LITERATURE, AND NEWS.

ANDREW LIPSETT, Publisher.

AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH.

TERMS: \$1 50 per year, in Advance.

VOL. 1.

FREDERICTON, N. B., JUNE 8, 1878.

NO. 9.

I have never used this, but judge from the analogy of the thing that it would give better results than other commercial manures.

As to varieties I do not feel competent to advise about the Swedes, but should certainly advise to plant the Norbitor Giant Mangold as of many varieties I have tried this has given me the best satisfaction. I prefer land that has been cultivated to newly broken land, for Mangolds."

HOME LIFE.

AN ESSAY READ BY MRS. F. H. SAXTON, AT A MEETING OF CLINTON, (ONEIDA), GRANGE, MAY 7TH, 1878.

The subject which has been taken for this essay is one on which much has been said and written, and to which much thought and reflection have been given, which have never found expression by either tongue or pen. It is a subject in which all must have deep interest, for I trust there is no one among us who does not appreciate its importance. It is only through our home life that the value of our character can be rightly estimated, and it is in our homes that we are most truly known.

We all have our ideals of what our home should be; how far they fall below we have only to look into our own hearts to see. The meaning of home is something more than mere shelter and habitation, for that is often and easily found. To fully appreciate a home in every way, we must feel a sense of proprietorship—a feeling that it is ours, not by virtue of occupation only, but by right of association, and as a reward of persevering and honest effort. As trees often transplanted possess no clinging roots, so homes often exchanged part tender associations that we come to feel that our homes are a part of our lives, and that to leave them is to break many strands in the cords which bind our lives together.

Let us ask how we are to make our homes an approach even to the ideal home, one that will give us a conception of that higher and more perfect, home to which our earthly lives must be desired. How can we make it a place where there is a ruling center, yet all can enjoy their individuality in their own way, without unnecessary jar or rupture?

Before attempting to answer this question, let me observe that the old precept of how much easier it is to preach than practice comes forcibly to my mind, for indeed I find it is not easy to do either. The home should be common property. Of course the house and farm must be owned by an individual, but the interests, privileges and comforts of this home should be shared in common, by every member of the household. But as long as humanity exists, in its now imperfect form, there must arise differences of opinion, and to avoid collision each will be called upon to yield some position or conviction which one would have seemed an impossibility. We are all liable to extremes, and extremes are always fraught with danger.

Order and neatness are both excellent qualities in their way, and at first thought one might say one could hardly possess too much of them. Yet in many houses they become the most unsuitable of tyrants. All kinds of enjoyments must be crowded out, all cultivation of the mind by reading must be omitted, all vocal enjoyment given up, the intellectual nature starved and the physical strength exhausted that this tyrant may have its way.

The idea has long prevailed that a farmer's home is almost of necessity destitute of the refinements of life. That there has been some reason for this conclusion cannot be denied. But does any necessity exist that it should be so. Is there any reason why we may not make our homes as attractive as those of any other class. A few little ornaments in the way of fancy work or pictures, as much as our home and means may afford, with a few plants (indeed I would say only a few) will do much to relieve the bareness of the home and render it neat and attractive. How cheaply and easily we might beautify the grounds about our houses by transplanting into them a few of the native trees with which nature has so bountifully provided us. But just give them a reasonable foothold and they will then thrive through long seasons of entire absence or neglect. The dwellings that we leave may be changed so as to be scarcely recognizable, but the tree that we planted, if it escapes the axe, will remain with the same nature and characteristics as a faithful monitor to our memories to whisper of the life and experiences of the "long ago."

The associations and attachments to the homestead are by these means strengthened tenfold, and at the same time our gratitude and appreciation shown for these beautiful gifts of nature.

Yet here, too, let us avoid extremes. Light and sunshine, are both luxuries and necessities, and we should err fatally, if we exclude these messengers of life and health, even by the most beautiful of trees or vines, from our dwellings. Among other things of the household, do not let us forget the culture of fruits, and I may be mistaken in placing the strawberry first among them. It is the first fruit of the season, and comes when we most thirst and hunger for its cooling freshness. It furnishes the healthy and delicious change which our nature demands. It is an easily cultivated as

most vegetables, and is just as palatable. Indeed, if I must be deprived of either, I would rather help eat the strawberry than the more fragrant onion. Raspberries and currants are healthful and delicious, requiring but little care after being once planted, and go very far towards furnishing the table with a cheap and healthy diet. If we have those things growing upon our own lands we shall be more sure to have them when we most need them, and I believe enjoy them better. A farmer's life necessarily implies one of care and labor. That of the farmer's wife, more perhaps than that of any other class, is the counterpart of her husband's. That it is sometimes hard and laborious cannot be denied; yet I believe it possesses more of the true elements of health and happiness, than any other. The purity of the home circle is more easily maintained; the freedom from the restraints of fashion is much greater—and one's time much more under control than in the village or city. There are a few of the benefits of country life which cannot be too highly estimated. Indeed I do not know of one person whose mind is in a healthy state who would not gladly leave the dust and dirt of the city for a season of rest and recreation in the country.

Books and newspapers are the blessings of the farmer's household, and if they are not appreciated farmers will have themselves to thank if they do not keep up with the times in which they live. The organization of the Grange meets a want which has long been felt among farmers. The soil has hitherto been too little of the social element among us. Our children, no less than ourselves, have felt this and it has done its share to make them discontented with agricultural pursuits, and induced them to seek employment in the city. The faculty of the course must be very obvious. The country is robbed of what should be its best dependence, and the city filled to repletion with a class for which it has no demand and which it cannot maintain. If the Grange succeeds in making the farmer's occupation more attractive it will have accomplished a great benefit, and I hardly see how it can fail to do so if its members are faithful to its obligation. The fraternal feeling which exists among its members, the friendly, social feeling which is cultivated, the little peasantries which are exchanged, to say nothing of the interchange of practical knowledge and experience, are all evidences of its importance.

And now, in conclusion, let us be sure that we live up to and make the most of the privileges which our rural occupation gives us; and let us prove to the world that the "home life" of the farmer is what it should be, the healthiest, the purest and the most attractive life in the whole world.

TOO POOR.

Such is the reason given by a large number of our farmers for neglecting to subscribe for and read an agricultural journal. Some declare that, as times are so very hard, they are compelled to curtail expenses and economize in every possible manner. To such we would ask, is it economy to dispense with the regular visits of your paper? Is your knowledge so full and complete that you can thus afford to despise the opinions and experience of your brothers of the plow? Can you not economize in some other direction and give your brains the food it requires?

Let your non-reading farmers ponder this subject well. They labor in the dark. There is not an agricultural journal published that does not impart knowledge of more value to its subscribers than its annual debt. A single paragraph is often worth hundreds of dollars to a large number of its readers. The market prices often save the producer from selling below ruling rates. Sharp operators in farm products watch for these non-reading farmers and pounce upon them as lawful prey.

This subject has been discussed so often and so many conclusive evidences of the great value of the agricultural papers to every farmer have been adduced, that further argument seems superfluous.

Every farmer owes a solemn duty to his children—to provide them with educational facilities. This duty can not be neglected or ignored. The cheapest education obtainable, and perhaps best, is acquired by reading agricultural books and papers.

A yearly sum should be devoted to this purpose, and be faithfully and judiciously disbursed. The beneficial effects of such an investment will be apparent to the most skeptical of very first year. Subsequent expenditures, in this direction will be ungrudgingly made.

DOES FARMING PAY.

That depends on the farmer and the farmer's family. If the farmer is a poor manager, with an extravagant family, it won't pay, or it won't appear to pay. Many a farmer has been ruined by the manipulations of the household and kitchen. Many more trace their ruin to extravagant families when, in reality, the fault is in themselves. Management is the life of all business. Any man who thinks farming is an occupation requiring little care, regulating itself, and returning abundant rewards whether the farmer rises early or late, whether he attends to the minutia of his business or not, is simply more mistaken than he ever was about anything in his life. The fact is, no occupation requires more thought, more attention, more constant care. Labor is not all that is necessary. The Labor of each succeeding day should be marked out the night before, its cost, its probable results, etc. Whoever waits for the morning to plan his work for the day, loses much valuable time. The general who lies still, without any definite plan, until the campaign opens, generally gets thrashed. So the farmer who waits until his work presses him without manipulating his plans, will never make farming pay. This gets along anyway sort of farming never did pay, and it never will. Farming won't pay if the leaks are left open, and every farmer who knows anything about his business knows that there are many leaks on the farm. There is a leak when he pays one per cent. for credit; there is a leak when it costs more to produce a crop than it returns; there is a leak when agricultural implements are left out in the weather to rot; there is a leak, and a big one, when the horses are suffered to go to rack and ruin—no painting done and no repairs made; there is a leak when fences are allowed to rot down, thereby exposing the crop to the ravages of stock. All these the managing farmer keeps closed. He does it because it pays him, and because he takes some pride in his business. Again farming is a precarious business when no accounts are kept. Men seem to forget that it is a business, at least a great many of them do. They forget there is a debit column and a credit column, and that unless these are balanced, and balanced frequently, they are completely in the dark as to their business. And thus they go on from year to year knowing nothing, caring less, apparently about their business, and in the end when 7/8 of their substance has leaked out through bad management, and the officers of the law get the balance, the howl is raised farming won't pay. Farming won't pay when accounts are allowed to run from month to month and from year to year. Store accounts particularly. They grow so surely and rapidly, but so unperceptibly, people don't think about them. It is so easy to send to the store and get a dollar's worth now, or five dollars' worth to-morrow. It is a small matter, and yet at the end of twelve months it amounts to hundreds, much of which was unnecessarily bought.

However, these things constitute a constant burden to be borne by the farmer, and few are able to cope successfully with it. Much of the complaint about the losses arising from this occupation, grows, as we have already said, from bad management.

More from this than from any other cause. But does it pay any one? Yes, it pays the good manager a handsome profit, not only in cash, but also in the increased value of his farm and farming implements, stock, etc. If a man raises a horse, or a cow, or a few sheep, or pigs, they should be placed to the credit of the farm, and yet many forget this. It pays those who obtain a strong hold on life. It will pay to cultivate both early and often. The maturity of the crop is

hastened thereby and its yield is materially increased. This is not mere theory but has been proved by the results of many careful experiments. If there were no other object to be gained except to promote the growth of the crops, early culture would pay well. But, as already noted, in many fields it is also desirable to kill the weeds which make their appearance early and attempt to take possession of the soil. No good farmer likes to have weeds in his crops. He knows that they are grown at a high cost that they take from the soil the elements which ought to promote the growth of his crops, and that their presence is considered a mark of inefficient management. He knows the weeds multiply with fearful rapidity and if a very few are allowed to ripen their seed, the land will be very weedy by the next time it is cultivated. These facts are so plain that farmers universally accept them and admit that the weeds should be destroyed. If they will for a moment reflect that, like the corn plant, a weed is very weak in the early stages of its growth, that its hold upon life is then slight, and that a little injury at this time will prove far more effective than a severe one when the plant is six inches high, they will readily see why early culture is so much more effective in keeping crops clean than that which is given later in the season. Certainly the two reasons that have been given are of sufficient importance, and, if carefully considered, must lead to the practice of early cultivation of hood crops.—Cor. Dirigo Rural.

APPLE TREE BORER.

An article in the Rural for March 23rd, entitled "To kill the larva of the apple tree borer," has attracted my attention. I, I think, greatly magnifies the difficulty of destroying the "worm." Let me hazard an opinion in regard to the arrangement therein described for killing the pest. It is not practical to any extent. It would be of no use unless the nozzle were inserted directly into the chamber he has excavated for himself and where he is; for the idea of ever forcing any liquid through the mass of debris he leaves behind him, would in nine cases out of ten utterly fail; for it would escape through the orifices in the bark, which he makes to dispose of the surplus debris, when it is in his way. Enough of that.

I have dug out thousands of these pests having had a large experience among orchards not my own and also among nursery trees. I never found a hole where one had entered closed by the growth of the tree. Having removed the soil around the base of the tree to expose the presence of the "worm," on clearing the bark by scraping it with the back of a knife, his presence is indicated by a little spot, and the extrusion of a greater or lesser amount of the chips. If he is a juvenile, hatched the current year; or only one year old, he will be found near and a little below the orifice and is easily destroyed; as he has cut but a small place beneath the tree at all. If two years old, he will be found further down the root, having cut a somewhat tortuous and continually widening path and packed it hard with debris involving more and more of the woody structure. This downward path is generally about four inches long, seldom six. He then turns and cuts his way up, generally keeping near the other path and passes the place of entrance, whereupon he commences to cut deeper, making a path in the sound wood and keeping entirely away from the bark. He continues his path upwards to about a foot above the place of entrance, cuts to near the surface, retires to the excavation he has made and goes through his last change, getting his wings ready for an active out-door life.

I think the injury to the tree is principally done the first two years, while he is cutting between the bark and the wood. If there is a hole through the bark in the body of the tree above the place of entrance, it is too late to look for him. He is gone—but if there is no hole, he has not yet got away. In that case cut down after him, remove the dead bark and debris, and follow his path until you find an open chamber, and then it is not difficult to dislodge or destroy him with a fine wire. An acquaintance of mine takes a small bit and after finding his bearing, bores in and follows him up that way. It is a benefit to the tree to clear the path made of debris and dead material. I have noticed that as long as the dead matter remains, no young wood is formed at the edges; and the healing process does not go on; but as soon as the dead matter is removed and the edges cut fresh and smooth, a new deposit of wood is made and the scarr commences to heal up and if the wound is not too great it heals over. I have

found some trees with so many old fellows that they were entirely gelded and could not be saved.

The method of prevention mentioned in the article referred to, is good; but not infallible—perhaps no method is infallible. The nearest to that is to wrap the bottom of the tree, from an inch or two under to a foot over ground, with cloth or paper, from the first of May till the middle of September, when it should be removed, to enable the bark to harden that it may not be injured by the freezing of winter.

Another method of preventing mischief is to bank the trees with earth, four or five inches high, in the early part of the season; and remove it in the fall and cut out any borers that may be present, before they have done any harm. Whatever preventive may be employed, the trees should be carefully examined once or twice a year.

Have any of our readers observed that buckwheat sown in an orchard will keep away borers? I have lately come to take charge of a large orchard, and find on examining the trees, that in a part of it where buckwheat was raised last year, there were none of the young larvae. Was the buckwheat the cause?—Rural New Yorker.

THE SCHOOL OF AGRICULTURE.

I was glad to see in your issue of 13th March the remarks from my former fellow-student on the Agricultural College.

I believe that the institution is a success. A two years' course at the Agricultural College will infuse in any youth a lively interest in agricultural pursuits, so that when his course is finished he will be ambitious to make his own farm a "model farm." That such an impetus is necessary is patent to everybody who has been through the older section of the Province. Farms once yielding immense crops are rapidly deteriorating, and are now scarcely remunerative. The New England States may fairly be taken as an example to Canadians—highly productive farms replaced by mortgaged and abandoned ones. Science must be brought into requisition to restore exhausted farms. The unsettled problems of under-drainage, deeper and cleaner cultivation, rotation of crops, raising and fattening cattle, and the better management of manures are reforms which must be investigated and practised in the near future in order that farms can yield their fullest returns.

The Agricultural College is derided by a few prejudiced and conceited farmers. "They know enough about farming," "no book farming for them." Yet when anything is the matter with their horses or cattle they employ practitioners educated by books. They toil on day after day—the work a drudge—always complaining of poor crops, and finish their career as farmers by making a living and no more. But enough of them! their race will soon be run, and more intelligent men substituted. Agriculture is undoubtedly the most important industry of our country. Should it not then have an institution for the training of its followers as well as other professions? Under the able management of Mr. Johnston as President, and with liberal Government support, the success of the institution is sure.—Cor. Toronto Globe.

Recently published statistics show an enormous increase of late years in agricultural products in the United States. Here are the figures:—

Table with 3 columns: Product, 1876, 1877. Rows include Wheat, bushels; Oats, bushels; Rye, bushels; Barley, bushels; Hay, tons; Apples, bushels; Horses; Mules; Cattle; Sheep; Swine.

EXAMINE YOUR SHEEP.

Farmers who have sheep, (and all ought to have them,) should watch them closely at this season of the year. Disease may spread very rapidly. If they appear to have cold in the head or a cough, lose no time in giving them a coat of tar. Salt frequently, mixing a little rosin with the salt. This is good for their sick or well. Ewes raising lambs, used pure water; as a general thing the ewe is sufficient for sheep, but when nursing it is not, and they will likely become diseased if they have not a supply. If your sheep are afflicted with hoof disease, lose no time in preparing them for the knife. It can be cured, but the trouble is greater than the worth of the sheep. If you wish to make a cure, pare the hoof closely, and stand the foot for one minute in a strong solution of blue vitriol; repeat this until a cure is effected. When you have cured one you will likely not attempt another.

Some one enquires of the New York Tribune:—How much of good cream will it take to make a pound of butter, and what is the difference between spring and fall cream? And is answered as follows by Professor Arnold:—From less than one quart to two, three or more quarts of cream will be required for a pound of butter, according as there is little or much milk mixed with it. Perhaps other than other wise one quart will make a pound. Aside from the admixture of milk, there is no difference that I am aware of, either by weight or measure between spring, summer, and fall, in regard to the amount of cream required for a pound of butter. Cream is a very uncertain quantity. There is no definite standard for it in respect to richness in butter or specific weight, nor any means of determining the exact amount of milk taken off with it by dipping down in skimming below the layer of cream itself, owing to different modes of raising it. Experiments have been made for years to fix upon a standard for cream, without avail. The latest attempt appeared recently in the American Dairyman, in which, as a basis for a theory of raising cream, its specific gravity is figured by a correspondent at 1,024, water being 1,000. This is faulty, as it implies that the cream is four-fifths milk. As a general average, milk is assumed to have a specific gravity of 1,032, and skimmed milk 1,034. According to these figures, it would require but four parts of skimmed milk to mix with one part cream to restore the gravity of new milk (1,032) and make the mixture just equal to unskimmed milk. This would make average milk yield 20 per cent. cream, which is absurd; and as such milk cannot be expected to yield more than four parts butter for 100 parts milk, the twenty parts of cream must be four-fifths milk and only one-fifth butter which is an absurd composition for cream.

The various ways in which cream is raised will make it more or less free from milk. When milk is scalded and then set in shallow vessels in an atmosphere of about 60°, it will throw up a very thin layer of cream, which will be nearly solid butter. If taken right from the cow, and set in pails twenty inches deep, in water at 32°, the layer of cream will be very deep, but it will be very largely milk. Sour cream, because loaded down with coagulated milk, will often sink in water, but sweet cream will almost invariably float; yet Berzelius has put the specific gravity at 1024.4 to 1019. Charles L. Flint experimented with the cream of different breeds which indicated 66 on the lactometer, which is equivalent to 1018. Let us say 1013, and Hanneberg 1.049 to 1003.5. These variations occur entirely in consequence of the variable quantities of milk removed with the cream. I have found when cream was freed as much as possible from the milk it had a specific gravity of 985, and Dr. Sturtevant as low as 983. It will require but little over a pint of such cream to make a pound of butter. Horsefall obtained as high as 25 ounces from a quart of cream, while the cream figured by Berzelius would require 23 quarts, and much of the cream sold in cities and villages would doubtless require a full gallon. With these facts and causes of invariableness, the inquirer will see the impossibility of fixing any definite standard for the yield of cream. Each one must make a standard for himself, according to his method of raising and removing it from milk.

The Haron Economist says:—The potato bug pest does not appear to be so numerous this spring in this country as formerly. Parties working against old potato soil say that many bugs are turned up, but in almost every instance they are dead; while in former springs the bugs are turned out as lively as crickets, and ready to mount the first potato in sight. The supposition is that the open and mild winter has induced the bugs out, and being overtaken by sudden frost have been destroyed. If this is the case and only a few remain, farmers should make a point of watching their potatoes closely, so as to destroy these few before they lay their eggs, by which means they may effectually clear out the pest.

In an establishment at Oakland, Cal., the entrails of sheep are used for making very serviceable belting machinery. First, the entrails are cleaned, and soaked for a few days in brine. The prepared material is then wound on bobbins, when it is ready for working up into ropes or flat balls. A three-quarter-inch rope of this material is capable of bearing a strain of seven tons. The material, furthermore, is very durable—more than twice as durable as hemp.—Popular Science Monthly.

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