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THE

BRITISH AMERICAN

CULTIVATOR.

W. G. EDMUNDSON, EDITOR AND PROPRIETOR.

VOL. III.

TORONTO:

PRINTED BY J. CLELAND, KING STREET.

1844.

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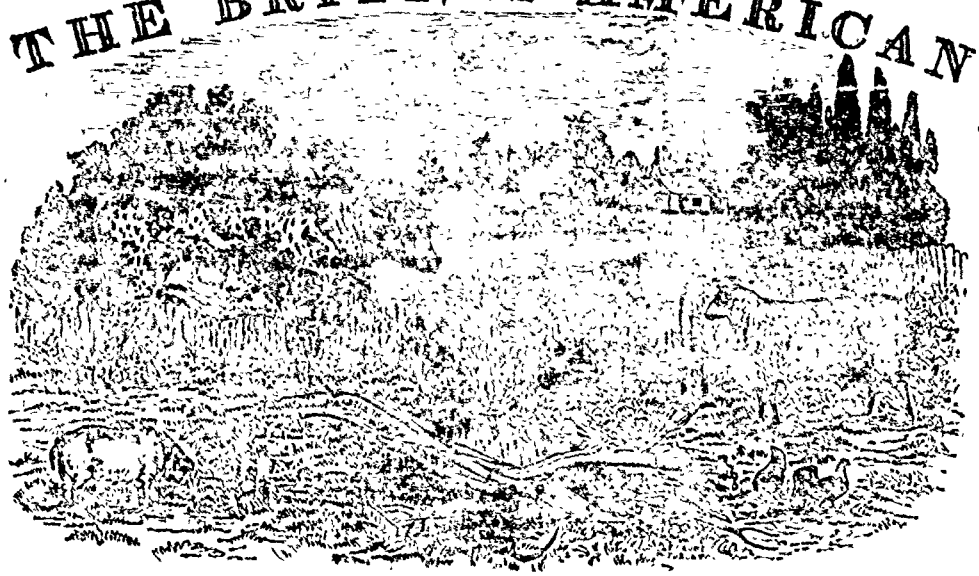
THE BRITISH AMERICAN



CULTIVATOR.

"AGRICULTURE NOT ONLY GIVES RICHES TO A NATION, BUT THE ONLY RICHES SHE CAN CALL HER OWN."—*Dr. Johnson.*

VOL. III. TORONTO, JANUARY, 1844. NO. 1.

THE CULTIVATOR.

"Agriculture is the great art which every government ought to protect, every proprietor of lands to practice, and every inquirer into nature improve."—*Dr. Johnson.*

TORONTO, JANUARY, 1844.

MONTHLY CALENDAR.

In this season of the year, when frost and snow impede the progress of the plough and almost all other out-door work, the flail and thrashing machine should be industriously employed." Manure may be drawn to the fields, (especially stable-manure,) which should be thrown in large heaps and covered with pond-mud, or peat soil, which will retain the gasses from the manure-heap and will be found equally as valuable for top dressing grass lands as the finest quality of barn-yard manure. Now is a good time, when the roads are good, to carry all kinds of artificial manure. When the farmers, in the back country, return from market, they should carry with them gypsum, and salt, for top dressing a portion of their autumn and spring crops in the month of May. Soot is also a most powerful fertitiser, every bushel of which should be saved and applied to the crops. Repeated experiments have proved that a mixture of three bushels of house ashes with two bushels of salt, sown broadcast, on an acre of wheat, will add ten or twelve bushels per acre to its productiveness. This is a good season to draw lime-stone, and wood to prepare for burning lime for the soil, which should be extensively employed on all heavy lands—the quantity necessary for most descriptions of heavy soils, would range from forty to fifty bushels per acre. If the farmer should doubt the efficacy and profitableness of the application of the above stimulants, to the soil which they cultivate, it would at least be worthy of a trial on a small scale. As low as the prices of agricultural products have been for the past few years, it would have remunerated the farmer to have expended more time and capital, in collecting and applying manure, than have been done. A ton of barn-yard manure is worth ten shillings, and near large towns and cities is worth a pound, as well as one pound is worth another. How very careful, then, should the farmer be of his manure heap. Instead of permitting the rich juices to evaporate, or to run off from his barn-yard to enrich his neighbour's fields, he should sink a cistern or tank in a convenient place in his farm-yard, with drains leading to it from his several farm-offices, to retain the rich liquid until the month of May, for the use of the crops. Look to your fences, and in such places as require additional rails, have drawn to the spot either rails, or suitable timber for making them, so that they may be thoroughly repaired in the spring. Attend to your live stock, recollect "what is worth doing is worth well-doing." No farmer should keep more live stock than could be profitably kept in good condition. Give your sheep and cattle a liberal supply of common salt in their troughs; keep a lump always in your horses' mangers. It will be found, that the improved general health of every description of live stock will well reward your care in this respect; remember, also, that regular good feeding is better than irregular profusion. Attend to their cleanliness and warmth, filth and cold are much more prejudicial to all live stock, and much more materially retard their fattening, than the farmer commonly imagines. Choice varieties of seeds should be sought after by the farmer at this season, and those who have any thing of rare excellence in their possession, to dispose of, they should exhibit it in the market, or advertise it for sale.—If this principle was generally acted upon, a decided improvement would be manifest in all farming operations. All the wood required for a twelve-month may now be drawn home, and piled under the wood shed for future use. Every farmer should make it a point to draw a quantity of logs to the saw-mill, so that a supply of boards and lumber will always be on hand in readiness for use. Make preparations for making maple sugar. The produce from two hundred full grown, thrifty trees, will give an abundant supply of sugar for the generality of farm-houses, during a twelvemonth,—from two to three pounds may be made from each tree.—This is the proper season for manufacturing vessels to catch the sap and store it for the sugar boilers.

Winter months is a proper time for both old and young to store their minds with useful ideas. Head work in winter is of as much importance as hand work in summer. Those who imagine that they are already models of perfection in all matters relating to practical farming should recollect that the wisest and best experienced agriculturists in Britain evince a degree of interest truly astonishing in diving still deeper in the mysteries of their noble calling. It is a notorious fact that the best educated are the most zealous and best practical farmers; this circumstance should stimulate the youth to cultivate the mind, by which means he would be better fitted for usefulness in life.

THE THIRD VOLUME.

We flatter ourselves that the Third Volume of *The Cultivator* will be worth, to any practical farmer, more than ten times the subscription, and that the work will increase in value and interest in ratio with its support. It was our intention to have changed the shape of the present volume into a more convenient form for binding, but owing to the large surplus of the second volume on hand, we have concluded to delay the change until the end of the present volume, in order that the two may be bound together. At the conclusion of the current volume, we shall commence a new series, with a very large edition, so that the work may be had from the commencement of the second series, down to the period that it stops its career.

The labour, both bodily and mental, connected with the management of this Journal, is now no longer irksome, inasmuch as the highest and lowest of the class, whose welfare we aim to promote, vie with each other in endeavouring to increase the circulation of our Paper. Indeed all classes, parties, and grades of society, show a disposition to further our interests. We feel confident, that, in future, there will be no occasion to appeal to the agricultural population for an extension of support, nor to complain at the indifference manifested in behalf of our exertions, in the cause of agricultural improvement.

An intelligent and discerning public must be fully aware, that the benefits resulting from a well-conducted agricultural magazine, in a newly-settled country like this, will be almost immediately perceived, and the influences from which will be lastingly felt by the whole community.

Entertaining those high views of the business in which we are engaged, and believing that our readers and the country at large will be benefited, to a much greater extent, from the information contained in our Journal, than we can possibly receive in remuneration for the time and loss of capital which we have expended in sustaining its existence and character up to this period—we shall, without further solicitation for support, on our part, confidently rely on the good sense of the public for that support and countenance which our efforts merit.

The present number has been a much longer period in making its appearance than we anticipated when we issued the December number. The cause of the delay is explained in a Note by the Printer, on the 9th page of this sheet. We are authorised to say, that the February number will be before the public by the 15th of that month.

ADVERTISEMENTS AND EMBELLISHMENTS.

The British American Cultivator, having the largest circulation of any publication in British America, would make an excellent advertising medium for agriculturists and manufacturers, and, in fact, is calculated to bring every description of useful pursuits into general notice, inasmuch as it is received at upwards of 400 Post Offices, a large proportion of which are in Canada West.

Persons having landed property for sale, cultivated lands to lease, or any choice varieties of agricultural or mechanical products, which they desire to have brought into general notice, will find it to their advantage to advertise the same through the columns of *The Cultivator*.

The whole of the profits arising from advertising, will be expended in procuring suitable Engravings, to illustrate the subjects contained in our columns. This of itself should be a great inducement for our subscribers to advertise liberally, through the medium here presented.

TORONTO HORTICULTURAL SOCIETY.

At a Public Meeting, convened at the Court House, in the City of Toronto, on Friday, the 19th day of January, 1844, it was Resolved:

1. That a Society, to be called THE TORONTO HORTICULTURAL SOCIETY, be now established.

2. That subscribers, to the amount of at least 5s. per annum, be members of this Society.

3. That, to each subscriber, a monthly publication (either *The British American Cultivator*, or some other periodical countenanced by the Society) be delivered, free of charge, if the subscriber desire it.

4. That Mr. Sheriff Jarvis be President.

W. H. Boulton, F. T. Billings, and Geo. W. Allan, Vice-Presidents.

W. G. Edmundson, Corresponding Secretary.

Robert Maitland, Recording Secretary.

William Atkinson, Treasurer.

5 That Messrs. Leslie, Logan, Gray, Fleming, Mansfield, and Westland, together with the officers before-mentioned, be a Committee of Management, and to collect subscribers, and that five of whom shall be a quorum for the transaction of business.

The Toronto Horticultural Society has been so recently established, that a lengthy report from us, at this time, will scarcely be expected. We would, however, beg to state, that the citizens of Toronto have already engaged in the business of subscribing, in a manner which proves, most incontestibly, that they are determined to be not one whit behind the citizens of the principal cities of the United States, in efficiently sustaining an institution ostensibly established for the laudable purpose of encouraging the introduction and growth of every description of choice varieties of flowers, vegetables, and fruits.

About two pages of each subsequent number of the *Cultivator* will be devoted to subjects of interest to horticulturists, and which will be found most interesting and useful to all who have a taste for gardening pursuits.

SANDY OATS

It will be seen, by advertisement on the last page, that Mr. D. G. FORBES, of the township of Whitby, has imported from Scotland a description of oats which has been fairly tested in this country, and which he confidently recommends to the favourable notice of the Canadian farmers. A sample of these oats have been left at *The Banner* Office, and at the Store of Mr. J. F. Westland, for inspection. They are capable of producing 21 lbs. of oatmeal per bushel, and are held in such high estimation in Scotland, that the Highland Agricultural Society recently awarded a very handsome prize to the owner of a quantity of superior sandy oats that were exhibited for competition at a late exhibition. The oats in question are at least worth a fair trial.

HOME DISTRICT AGRICULTURAL SOCIETY.

We feel much pleasure in being able to announce to the friends of agricultural improvement, that the officers of the above society have adopted a most efficient plan, for carrying out the spirit of the scheme, lately published in the *Cultivator*, for re-organizing Agricultural Societies on a more firm basis, throughout this province.

They have recommended the scheme to the notice of the District Council, and have requested the individual members thereof, to exert there influence in establishing an auxiliary branch Agricultural Society in their respective townships. They have also employed an agent to assist in forming the societies in those townships where the people have not heretofore evinced a desire to engage in the agricultural associations that have been in operation for the past few years.

In the course of three months there will be not less than twenty associations for encouraging agricultural improvement in the Home District alone, a large number of which will number from two to three hundred members each; and others will probably not exceed forty members.

To illustrate the benefits that will accrue to the members of a township society, that only consists of the latter supposed number of subscribers, we would mention the following:—They would receive forty copies of an agricultural paper, that would contain a great variety of useful practical information—a single item of which would ottimes be worth pounds to each member,—they would have twenty dollars in the hands of the treasurer, which might with great advantage be expended in premiums at a township ploughing match,—they would be allowed to show their choice stock, varieties of grain, and farming implements, at the District and Provincial Agricultural Exhibitions, and, independent of all these advantages, they would, if they thought proper to act on the principle, be much benefitted by attending monthly meetings for discussing agricultural topics, and by engaging in concert in the proper cultivation, and preparation for market, of hemp, flax, and other products, not generally produced in the country.

If the agriculturists generally, were apprized of the great good that would follow to themselves and the country, by becoming members of Agricultural Societies, based on the sound and patriotic principles embodied in the scheme

alluded to, we feel confident, that the thinking portion of the population would become members at once, and would recommend it to all with whom they have influence. There will be no difficulty in influencing an intelligent individual to subscribe to an Agricultural Society, which awards to all its members "all prizes and no blanks;" all of which will be worth far more than the annual subscription.

The members of the Home District Agricultural Society have set a noble example to their fellow agriculturists of other districts, and which, we trust, will be followed throughout every section of the province.

THE CENTRAL NEW-YORK FARMER.

Our subscribers will undoubtedly recollect the frequent favourable notices we have taken of this, the ablest of our American cotemporaries. We say ablest—from this we wish to be understood to mean that its editorial corps are composed of a number of intelligent, practical farmers, who have only one common object in view, viz, the advancement of their country's welfare, and who properly understand the subjects upon which they write. The number before us, of this admirable production, is probably the best of the series that has come under our inspection; and to convince our readers that we are actuated by higher and nobler principles than merely self-aggrandizement, we shall glean, for their benefit, such portions of *The Central Farmer*, as will, in our opinion, be conducive to their prosperity and amusement:—

Connecticut Farming.—An able editorial, giving the particulars of a visit to Connecticut, occupies upwards of three pages. The difference between good and bad farming, is beautifully portrayed in a description given of a farm of 220 acres, which was twelve years ago comparatively barren, rocky, and worthless. The present owner has cleared the rocks and loose stones from the land, and converted them into stone walls six feet high, six feet thick at the base, and three feet at the top, putting the largest rocks at the bottom, and laying the edges true and straight to the line, neatly capped with large flat stones. The foundation of these walls is sunk into the ground about one foot, by which means the frost has no effect. The farm is laid off into lots, from five to ten acres each, which gives it a neat and imposing appearance. A considerable quantity of unprofitable swamp land has been reclaimed by draining, paring and burning,—the two first years' crops from which covered the whole expense—yielding a crop the second year of upwards of three tons per acre of superior hay. The parings produced 2,000 bushels of ashes, which, with the peat soil, made an excellent compost for the wheat crop. In the centre of a barren field is a small swamp of about one acre, which, by draining, presents a rich vegetable substance, called peat or muck. It measures six feet in depth, and the swamp is estimated to contain 10,000 loads. This swamp the owner considers his mine—his bank—from which he intends to make large *drafts*, without fear of protest, and prove, while also he expects to enrich his upland to the highest possible state, by mixing the muck with lime, ashes, and animal manure, into a compost heap, made in the following manner: The heap is commenced by laying sedge or coarse straw, six inches thick, say twenty feet wide, and any length, according to the quantity necessary to be made; then a layer of muck, one foot thick, carefully levelling it off; then a layer of ashes or lime, equal to 60 bushels to twenty cart loads of muck. It is then harrowed and ploughed; then a layer of sedge, straw, &c., from four to six inches thick; then another layer of muck one foot thick; then a layer of lime and ashes, and plough and harrow as before. The above order is to be followed, until the heap attains the height of five or six feet. The whole is then covered with straw, and allowed to remain for a number of months. A short time previous to its application upon the soil, the whole heap is removed to a convenient distance, by the aid of a plough and scraper, and, in a few days after its removal, will be as fine as ashes, and may be applied to the land with a cart and shovel. The stock on the farm are of the most improved breed of Durham cattle, South Down sheep, and Berkshire and Neapolitan hogs. The farm house, and out-offices, are fitted up with much taste. The vegetable and flower gardens and orchards, are filled with the choicest productions, and which receive the strictest attention.

We have condensed those few hints, from the talented article alluded to, in the hope that some of our farming friends would follow the noble example of industry, perseverance, and good taste set them by Morris Kethum, Esq., the Connecticut farmer alluded to.

Cure for the Bloody Murrain.—A subscriber informs the editor, that cattle may be cured of this disease, by giving a table spoonful of mandrake root pulverised to each animal, which will almost always effect a cure; but may be repeated in half the quantity after an hour, if the first dose does not answer.

Politics and Agriculture.—A very sensible article, written expressly for a class of politicians who attend agricultural meetings and societies' exhibitions, and make long and clamorous speeches, to create capital for their respective parties, deserves a place in our columns; but, for want of space, cannot give it insertion. For the sake of the welfare of our highly favoured country, we trust that the Canadian politicians, from the highest to the lowest of all parties, will lay aside their exclusive feelings, on all such occasions as require the joint co-operation of parties, who differ from each other on religious and political subjects. The slightest indication of a breach, upon neutral grounds, at agricultural meetings, dinners, and exhibitions, shall receive our fullest disapprobation. We feel almost confident, that the sterling good sense of the Canadian people will be so strikingly portrayed, on all neutral manifestations of public opinion, that none will deserve a reprimand from an humble Editor of an Agricultural Magazine.

Agriculture of Canada.—A letter, signed by *J. Alley*, a reputed Canadian, bears so heavy upon the Canadians, that if we were living in another country, and knew but little about the people of this Colony, we should not hesitate to say that they were a quarrelsome, wrangling people, and neither knew nor studied their own interests sufficient to earn a bare subsistence. We would advise Mr. A. to write in future more cautiously, and not express himself in such general terms about matters which he either knows but little about, or else has had his ideas so confused, since living among the Americans, that he entertains prejudiced notions against his native countrymen. His remarks upon *thin* ploughing are much to the purpose. The depth which he recommends that soil, of a deep friable nature, should be ploughed, is from 7 to 12 inches, making a deep and open soil, in which the excessive rains may settle from the surface. If the ground be pulverised, to a great depth, the roots of the plants will also extend to an equal depth, and receive moisture and sufficient strength, in an ordinary drought, to keep the stalk in full and vigorous growth. In our opinion, no object is so worthy of the attention of the Canadian farmer as deep ploughing on soils of a rich friable subsoil.

Benefit of Manure and Plastering.—A Correspondent reports two experiments, one by manuring heavily early in spring, the manure having been drawn from the yard by sleighing, and spread while there was snow on the ground. The second was by manuring lightly, and one hundred pounds of plaster sown per acre. The product from the land that was manured lightly, was full equal to that heavily manured, the products of both being about two tons of excellent hay per acre, and the crops, for a number of previous years, being only about eight cwt. per acre.

Agriculture and Manufactures.—The immediate and inseparable connection which exists between the farmer and the manufacturer is strikingly illustrated in an eloquent address, delivered by the Hon. C. Hudson before the Worcester Agricultural Society:—"Such is the connection between these great callings, and such their dependence upon each other, that none but a man of a single idea, could ever dream of any hostility between them. The man who, from undue attachment to either of these pursuits, would separate it from the others, would show no more wisdom than he who, from partiality to one member of the human system, should separate it from the body by which it is nourished and sustained. The great object with the farmer, is, to find a market for his produce. It is to no purpose that he raises more than he consumes, unless he can dispose of the surplus. And who are his purchasers? Not those engaged in the same pursuit with himself; they have generally enough and to spare. His purchasers must be found among the manufacturers and mechanics, the merchants and traders, and those engaged in other callings than agriculture. The farmer, then, has nothing to fear from those in other avocations, or from the increase of their numbers. And what if the young men leave the farm for the workshop, the mill, the counting house, or the professions? They may find—as many of them do to their regret—that their choice has been unwise; and they left a certainty for an uncertainty: and like the younger son in the parable, they may desire to return to their father's house, where is bread enough and to spare; these evils may fall upon the individuals themselves, but agriculture sustains no real loss."

The proper encouragement of manufactures, is a subject of vast importance to the agriculturists of this colony. If the English corn laws should be repealed, we shall then, in a great measure, have to depend upon our own resources; and as all parties appear to be of opinion that free trade in corn will shortly be the order of the day, the sooner we commence giving encouragement to domestic industry, the more speedily will the train of difficulties be obviated, which must inevitably follow from such a sweeping measure.

A CHEERFUL TEMPER, joined with innocence, will make beauty attractive, knowledge delightful, and wit good natured. It will lighten sickness, poverty, and affliction, convert ignorance into amiable simplicity, and render agreeable deformity itself.

"THE ALBANY CULTIVATOR."

This old and valuable journal has commenced a new series of volumes with the January number of the present year, and is, unquestionably, a well conducted work. As we have much reduced the price of our own magazine, and as the postage on which is only about one-fifth as great as on the American papers, the British American farmers will no doubt find it tend to their own welfare to support a journal published in their own country, devoted exclusively to the promotion of the great interests of the British North American Colonies. In anticipation of receiving a full, undivided and liberal support, from the highest to the lowest of the class to which we have the honour to belong, being residents of British America; we shall review, monthly, a few of the leading American papers, not with a view of criticism, but for the object of gleaning from the well stored columns of our cotemporaries useful and practical information for our numerous readers. The following is gleaned from *The Albany Cultivator.*

Rearing Colts.—A correspondent states that in rearing horses for the Santa Fe trade, that whenever great power of enduring hardships is required, that they feed to a colt, the first winter, thirty bushels of oats; the second, twenty, the third, ten; the fourth, less still, or none at all. We would beg to add an opinion in confirmation of the above statement, viz., that the practice alluded to is highly commendable, and has been successfully acted upon in numerous instances that have come under our notice. The oats would be better if cut with the straw, especially for the first year.

Buckwheat as Green Manure.—The ploughing in of buckwheat is recommended by the editor as a means of enriching a poor and comparatively barren soil, as a summer fallowing preparation for a crop of autumn wheat, by sowing two crops as recommended, in most cases the soil would not have the necessary consistence to ensure a good return of fall wheat, but it laid up in ridges in autumn, might give a good average crop of spring wheat, if the seed be of a good variety, properly prepared, and sown as early as possible.

Clover Hulling Machine.—To those who are extensively engaged in the cultivation of clover, an efficient mill for dressing the seed is a *desideratum*. We would, therefore, recommend those who can make the investment, or a suitable number to club together, and purchase one from H. Baldwin, of Washington, Connecticut, manufacturer, whose clover mills are highly recommended by those who have used them, and which have taken a number of premiums from agricultural societies, in various portions of the Union. It is said to execute the work without any loss of seed, and is so constructed, that those who manage it will suffer no inconvenience from dust. Thomas D. Burroll, of Geneva, N. Y., also manufactures clover machines, which are highly recommended. He builds three sizes, costing sixty, seventy, and eighty dollars each, and requiring from three to six hands to attend them.

Remedy for Hard Milking.—A Correspondent states that he has tried the plan of opening the teats of cows that milk hard, with a harness awl, as recommended in a former number, and has by this means made a very good milking cow, from one which could scarcely be milked before.

Clover in Orchards.—The cultivation of clover in orchards is recommended by the editor in reply to some enquiries made by a Correspondent. We are convinced that the practice is a bad one. Clover having a broad porous leaf retains the dews which fall from the atmosphere, and the gases which rise from the decomposition of vegetable matter in the soil. This is especially the case when any stimulant manure, which attracts the food to the plant, that would otherwise benefit the tree, is applied to the surface of the soil. An old friend of our's, some years since, seeded his orchard with clover, and was so convinced with the correctness of the views which we entertain on the subject, that he only allowed it to remain in clover one summer. He remarked to us, some time afterwards, that he would have lost one-third of his trees, if he had allowed his orchard to remain in clover three summers. This is our candid opinion, if others think differently, and have practical grounds for their conclusions, we would be happy to hear from them on the subject.

Cutting Straw, Hay, Cornstalks, &c for Fodder.—An able article appears under this head, which, if space would admit, we would insert in full. The advantages of cutting the above descriptions of fodder are enumerated in the following manner by the writer:—In the first place, there is little or no waste of food. Every farmer is aware that hay—clover hay in particular—when fed without cutting, a very large portion is rejected by the animal and wasted. Secondly, it is presented to the stomach in a condition the most proper for the action of the digestive organs, an essential point in ascertaining the necessary amount of food required to keep an animal in condition to travel or to labour. Thirdly, an animal consumes much less time in making its meal, or filling its stomach with cut food than when uncut, a most important matter to the poor animal that requires rest after labour, and not to be compelled to spend half the night in eating to satisfy hunger, when it ought to be quietly sleeping; and, lastly, there is a great saving in the quantity of food consumed, to keep an animal in equally good condition, or fit to perform a given quantity of labour. The writer further adds, that a few years since a failure in his hay crop compelled him to keep his working horses on cut straw and corn meal, with a few carrots daily to each horse, and it appears that his horses were never in finer condition, or better fitted for the labour of the farm than in that year. He also states, that he makes it a rule to salt his horses once per week, and to mix with the salt for each animal a handful of ashes, as a preventive of disease, such as bots, colic, &c.

The great principles of economy, which is so rigidly and thoroughly studied in Flanders, is recommended in feeding stock. English experiments are cited, in which, by the means recommended, about one-fifth of the expense would be saved; and warm and comfortable stables, sheds, and other suitable out-offices for the comfort and health of every description of live stock, are recommended as being among the first principles of animal economy. The great advantages of having a straw cutter attached to a common horse power, is so clearly shown, that a farmer, with a reasonable share of common sense, and even with a very moderate purse, might, with much certainty of profit, venture to purchase a straw cutter, constructed on the improved principles. We perfectly coincide with all the writer has said on the subject, and would earnestly recommend the farmers who favour us with their support, to purchase an improved straw cutter, They would find the greatest possible advantages from this description of food for their horses during the summer months.

Agricultural Implements.—The proprietor of one establishment, at Easton, near Boston, has invested a capital of upwards of one hundred thousand dollars, and has brought the manufacture of shovels, spades, &c to a great perfection In Boston there are several establishments for the exclusive sale of agricultural implements. The sales of one firm amounted the past season to upwards of 40,000 dollars. The subsoil ploughs manufactured by Ruggles, Nourse and Mason, are highly noted, and may be had for from $8 to $15, according to size. The wood work of the ploughs is all got out and fitted for the plough by machinery, even to the making of every mortice and tenon, and boring every hole.

Wintering Farm Stock.—A Correspondent treats on this seasonable subject in such an able manner, that we copy verbatim the following paragraph from his communication:

"Many seem to say by their management, that young stock will not grow and thrive in winter, and some are compelled to skin more or less before spring, for want of attention. Let no more stock be kept on a farm than can be at all times in a thriving condition, with shelters to protect them from the chilling blasts of winter, especially for the young; give them the best of hay, morning, noon and night; and if they do not thrive, a little grain may not be amiss. Many of our best colts are injured by neglect the first autumn, and are not worth as much in the spring as when weaned in the fall. Thus a loss of fodder and growth follows, and very frequently midsummer is past before they begin to thrive. The growth of the stock is the profit of the farm, therefore daily care should be taken to see that they are constantly improving. Let every foddering show that your stock is gaining, and in the spring you will feel rewarded for your winter's toil."

Making Butter in Winter.—The plan which we copied on a former occasion from the Journal from which we are now making such wholesale use, is again recommended, both by a correspondent and the editor, which is as follows:—When the milk is strained, it is put upon the stove and heated to near scalding heat, and then set away for the cream to rise. After sufficient cream is gathered for a churning, it is placed where it will be kept warm a sufficient time for it to sour (usually about 24 hours), where it is subjected to the process of churning, which rarely occupies more than 30 minutes.

Black Leg in Calves.—A writer states that he has sustained heavy losses from this formidable enemy to the rearing of calves, and, as a preventive, has resorted to the plan of giving his calves more chance for exercise, and when any of them shows symptoms of disease, he administers a strong dose of *lobelia*, which, with an extra amount of exercise, have had the effect of curing them immediately.

Blind Teeth in Horses.—A private correspondent says that a horse of his but lately lost his sight, which he attributed to over-work. The horse was sent to the blacksmith-shop to be shod. The smith told the groom what ailed the horse, and took a hammer and a piece of bar-iron, and knocked out the blind tooth, which dropped with the first stroke of the hammer. The horse very shortly afterwards recovered his sight.

Experiments with Green Manures.—A correspondent points out a number of cases where ploughing under Indian corn, sown broad-cast, and a moderate crop of clover, which have given a return fully 100 per cent. over the common methods of making summer fallows. The great advantages of the plan consist in a saving of labour, a simple and ready method of freeing the land from noxious weeds, and a cheap and efficient plan for obtaining any

desired quantity of vegetable manure. We feel warranted in predicting, that as soon as public attention has been fully drawn to the subject, that ploughing under clover *ley* with *one furrow*, will be the most popular method for preparing land for wheat, especially on every description of light soils.

Bommer's Patent Method for making Compost Manure.—A letter from Mr. Ellsworth, chief of the Patent Office at Washington, shows conclusively, that after all the bragadocia which Bommer has practiced for the past 18 months, that he is not only a humbug, but may be placed at the head of the list of modern swindlers. Such a man, in our country, would have been expelled from his country long since, and have received the just indignation of all honest men. It appears that he had been refused "a right" for his *invention*. The French mode of preparing the composts alluded to, is given in full, which shall be published in our next.

Hereford Cattle.—Wm. H. Sotham, near Albany, puffs his own herd of cattle into notice most magnificently. Really our neighbours are a modest people! The course which Mr. S. has adopted, will probably be the most successful one that could be practiced to bring his choice stock of Hereford cattle into successful notice, among the *prejudiced* judges of horned cattle in our enlightened neighbouring country. We wish him much success in his speculation. The Herefords are undoubtedly superior graziers, but when we hear their milking qualities brought into comparison with the Durhams, we are led to question the purity of the motives that influence the writer.

Lucern for Soiling.—A writer states that he has tried an experiment with lucern for soiling, which appears to answer his expectations. Only one instance has come under our notice, where this grass has been sown in Canada—it answered a good purpose, and the farmer who grew it said that he could safely recommend his brother farmers to sow it, on soils of a dry description.

Fatal Experiment.—A friend informs the editor that his neighbours having seen some publication recommending oil to kill caterpillars on fruit trees, applied oil to destroy worms on plum trees last spring, and all those trees died from the oil. A similar instance came under our notice last spring. A farmer rubbed his young apple trees with the inside of pork rind, which had the effect of killing both lice and trees.

Prevention of Smut in Wheat.—At a late agricultural meeting in Sussex, Eng., John Ellman, Esq., related the following account of an experiment in preventing smut in wheat. He took four sacks of smutty wheat, sowed one sack of it with brine only, as strong as he always made it, to bear an egg as large as a hen's; he sowed another with lime only; he sowed the third sack with brine, strong enough to bear an egg, and then let it lay in lime all night; and the fourth he sowed without any thing. The result was as follows:—Where the brine only was used, every now and then there was a smutty ear, still not many; where the lime only was used, there was much about the same quantity of smut; where the lime and brine was used, there could not be found a single smutty ear; and where nothing was used, it was a mass of smut.

The plan which we have practised, with the *Albany Cultivator*, is one which we shall adopt with a number of our most able cotemporaries. We have only one object in doing so, viz., the advancement of Canadian agriculture.

FLAX CULTURE.

The cultivation of flax has been frequently brought before the notice of the Canadian public, through the medium of the *Cultivator*, and we are happy to observe that the attention of a number of influential parties have been drawn to the importance of the subject. Three respectable farmers, in the neighbourhood of this city, have lately informed us that they intend to engage largely in the cultivation of this plant,—others of our acquaintance have said that they will sow a few acres by the way of trial,—and others appear anxious to obtain as much information as possible regarding the management of the crop;—and, we have no doubt, there are scores from whom we have not heard, who are prepared to engage in its cultivation.

We have frequently urged upon our readers the propriety of organizing flax and hemp societies, for the encouragement of the growth of these plants; and would have urged the matter still more forcibly upon the attention of the public, had it not been, upon mature consideration, we have come to the conclusion, that a more efficient method to introduce the business, would be found in a general re-organization of Agricultural Associations, in such a manner as would tend to unite those societies in their efforts to introduce agricultural improvements. We have every reason to believe that we shall be successful in accomplishing this important matter, through the agency of the friends of agricultural improvement, in the course of the present winter.

If the three grades of associations, that are about being organized in the province, would devote a portion of their funds to the cultivation of flax and hemp, a simultaneous movement would thus be made throughout the length and breadth of the land, which would have the effect of adding an important item to the exports of the colony. It would also be the means of giving profitable employment to capital and labour, during the winter months.

With the present limited knowledge that the Canadian agriculturists possess, on the culture and after management of these crops, the article which they would produce, would not be worth more than £30 per ton, for exportation, and about £35 per ton for the present home consumption: whereas, if the most approved and scientific plans were pursued in its culture and preparation for market, a quality of flax might be produced, that would be worth, in the Toronto market, not less than £60 per ton, for exportation. This fact alone should stimulate the farmers to unite their efforts in establishing friendly associations, for propagating useful knowledge, and discussing matters directly connected with their individual and general welfare.

The present prices of Irish flax, in Belfast, are, mill-scutched, fine, 7s. to 9s. sterling, per stone, hand-scutched, from 4s. 6d to 5s., per stone. The best samples of Belgian flax, is worth in the above market from £80 to £100 sterling, per ton.

The climate and soil of British America are admirably well calculated to produce this plant to perfection; and we flatter ourselves, that within a few years, the Irish flax spinners will have just grounds to eulogize the article which, we are of opinion, will be grown, prepared, and shipped to the Irish market, from this country. Nothing can be effectually and properly accomplished without union. If the educated and patriotic unite, and concentrate their efforts in a proper channel, an entire revolution will shortly be brought about in the agricultural affairs of this colony,—we mean to say that every branch of business would resume a healthy and prosperous appearance, and this country would be justly entitled to the high encomiums bestowed upon it, by the friends of Canada, in Britain. In anticipation of this union, we shall, from time to time, give practical instructions, not only on the subject before us, but on every branch of agriculture.

A system has been pursued in Belgium, for a long period, called "The Factor System," which, if introduced in this country, would be calculated to effect the greatest possible benefit to those who are disposed to engage in the cultivation of flax. The system being, that individuals, possessing capital, purchase the flax while on the ground, from the farmer, who undertake the pulling and all subsequent treatment of the crop, which is performed under the immediate superintendence of competent persons. The farmer, by this arrangement, would obtain a fair price for his crop, without the risk of loss, by improper management. The factors, or purchasers of the crop while in its raw state, would find it a profitable business,—and probably more so than any other branch of trade in the country.

As soon as the Provincial Agricultural Society be organized, which we hope will be the case before the lapse of the present winter, a comprehensive and simple plan for entering largely into the cultivation of this crop, will then be laid before that body, for their consideration and approval, which, if assented to, will be published for the benefit of the public.

In the meantime, we trust that the importance of engaging in this branch of industry will not be lost sight of, by the intelligent farmers in the country. We promise them our assistance, and if only they follow out the advice that will be given them monthly, on this, and many other important subjects, we are confident that they will never have just grounds to repent.

PURIFIED HONEY.—The following mode of purifying honey is recommended by Siller,—"Any quantity of honey is dissolved in an equal part, by weight, of water. The liquid is allowed to boil up four or six times, without skimming; it is then removed from the fire, and after being cooled, brought on several strong linen strainers, stretched horizontally, and covered with a layer of clean and well-washed sand, an inch in depth. When the solution has passed through the strainers, it is found to be of the colour of clear, white wine; the sand being allowed to remain on the strainers, is rinsed with cold water, and the whole of the liquor is finally evaporated to the thickness of syrup."

OPINIONS OF THE CANADIAN PRESS ON THE PRESENT COLONIAL TARIFF.

"We have always been opposed to a protecting duty on Agricultural produce, believing, as we do, that it will not be productive of any perceptible benefit to the Canadian farmer, and that he has really no need of protection to enable him to attain not only a comfortable subsistence, but actual independence,"—*Extract from a late Kingston paper.*

"It is melancholy that, while the Americans, loaded as they are in the British markets with differential duties, are making this vast progress, the industry of Canada, in respect of cured provisions, is almost altogether stationary The United States have to pay for their own armies, fleets, diplomacy, and public expences of every description, and are so burdened with local taxes, that it is alleged as a reason for imposing taxes on our frontier, that they are compelled to send their cattle into Canada to be sold for what they will bring, in order to pay those taxes. In Britain their cured provisions pay four times the duty that ours pay All our great advantages are neutralized by the ignorance and negligence of our farmers, who, with a few exceptions, obstinately persist in rearing cattle and pigs of unimproved breeds, full of bone and skin, and without any depth of flank, and in sending these to market half fed, and, in consequence, unfit to cure to any advantage. If a farmer here and there is disposed to do better, it is impossible for him, unless he is a man of wealth, which very few of the Canadian farmers are, because to get good stock requires co-operation. If our farmers had seen their true interests, and our legislators been wise, vigourous efforts would have been made in the past session to improve the breed of cattle, instead of the incredible folly of actually taxing the importation of bulls, adding further to the difficulties, already sufficiently great from the bad state of our roads, of sending cattle to Montreal to be cured for export, instead of killing them, and sending barrelled beef to New York and Boston. The utter uselessness of any such measure for the purpose of protecting the farmer must now be obvious to the most ignorant and unreflecting. The price which the farmer will obtain will be that which can be obtained by curing for exporting, for it is of course obvious, and known to every body, that when a country produces more of any article than it consumes itself, the price of the whole is ruled by that which it can get for the balance. Now, as no local legislation can raise the price in the English market, it follows that no duty on our frontier can permanently raise our own, and the protection is evidently illusory, though prices may be a little disturbed, and not always rise and fall at the same times as they would if the trade were free. The duty on our frontier is simply a premium to the American curer, just as if his own Government allowed a like bounty in the shape of a drawback on tolls, as they do with the salt of Syracuse, or any other way; for it makes it by so much more profitable for him to cure and send to New York, and pay the foreign duty, than to drive over the frontier, have cured at Montreal, and pay the Canadian duty.

That a moderate fixed duty prevents gluts, either in provisions or in such articles as hops, is an idea altogether fallacious, and it is astonishing that any one can be so stupid as to entertain it. When there is such an excess of any article in a neighbouring state that it must be sold at any price to prevent its perishing, no duty is effectual short of prohibition; and with this view, the sliding-scale was devised in England, and has brought on a new train of evils. But such an excess of imports is precisely what, on the admission of all parties, a fixed duty does *not* prevent, and that is the principal argument against it in England England not being a country exporting food, protection, whether a wise thing or not, is *practicable* But in Canada it is not practicable, and a fixed duty, high or low, is a *continued* embarrassment to trade, and not even an *occasional* benefit to the farmer"—*Extract from a late Montreal paper.*

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The views which we have set forth to the public on the subject of a reasonable protection, to the farmer, are in direct opposition to the opinions entertained by the writers of the articles from which we have made the above two extracts. It is pretty fine, indeed, for a person, who spends most of his time in the drawing-room, and who has been accustomed to wear from infancy, morocco slippers and kid gloves, to venture to make the bold assertion, that the Canadian farmer requires no protection to enable him to become independent in his circumstances. The *intelligent farmer* is the best judge of the matter,—and, in fact, he is the only party that can form a correct estimate of the profits of his business. We shall not, at this time, combat the bold and unwarranted assertions contained in the first quotation, but shall avail ourselves of the first favourable opportunity of pointing out a few conclusive reasons why the Canadian husbandmen require as much protection as the farmers in older countries, with whom they have to come in direct competition, in selling their staple articles of Agricultural produce.

The latter extract gives the Canadians a sound piece of chastisement for their negligence in all matters relating to their best interests. We would, however, beg to say, that a marked improvement is taking place among the agricultural community, and we are of opinion, that in the course of a few years, the agriculturists of this Colony will be celebrated for their superior knowledge of the practice and theory of their noble profession. As it regards the importation of bulls from the United States, there are as good bulls in Canada as in that country. As an evidence of the truth of this assertion, two of the best bulls, at the late Rochester exhibition, were bred by the Hon. A. Fergusson, of Woodhill, Gore District. We have superior stock, and good judges, in Canada; but have to learn the secret of *puffing* our choice articles and products into favourable notice.

The utter uselessness of protection to the farmer, instead of being obvious to the most ignorant and unreflecting, is now looked upon by all classes as being a measure calculated to relieve the farmers from the difficulties, which they formerly had to contend with, in sudden fluctuations in the prices which they received for their produce. The British and Canadian markets, will, under the present arrangement, govern the prices which the Canadian agriculturist receives for his produce, whereas, under the old system, the Buffalo and Rochester markets influence the prices in our own markets, to a very considerable extent. In illustration of this matter, we would mention the following case, which came under our immediate notice, and, if it were necessary; a thousand similar cases might be advanced. In the month of April last, one of our speculating neighbours,—a Buffalo Grocery Merchant,—brought into the Toronto Market 40 casks of butter, of an average good quality, each weighing 112 lbs. At that period, good butter was worth 11d. per lb. The first lots that he sold, he received 10d. per lb., the following two days 9d. per lb., and the subsequent four or five days the price gradually became reduced, until it came down to 5½d. per lb., for which he sold the remainder of his stock. The prices afterwards did not exceed 7½d. per lb., and the great bulk, in the market, only brought 6d. per lb.

We would beg to add another instance in favour of the principle of protection. In the autumn of 1839, one of the largest farmers in the district,—a friend of ours,—ploughed, in a proper manner, seventy acres of wheat stubble, which he intended to prepare in the spring for barley. Prices were firm at 3s. 2d. per bushel, at Toronto, in the early part of autumn, but in Rochester, and other neighbouring cities, the best quality of barley was only worth 1s. 3d. per bushel. A Toronto brewer purchased a small cargo, and shipped it from Cardiage to Toronto, which cost him about 2s. per bushel, when placed in his own bins. The fact that the article was worth so little in Rochester, and that a supply might be calculated upon, influenced the brewers to evince a degree of indifference in purchasing, which had the effect of reducing the price to about 1s. 6d per bushel, at which price it remained during the whole of that season, and also for two subsequent seasons. The farmer in question became disgusted with the state of things which this agrarian levelling produced, and, after sustaining a heavy loss in stall-feeding a number of bullocks, he came to the firm resolution that he would neither raise barley for 1s. 6d. per bushel, nor stall-feed bullocks for beef through the whole of a Canadian winter, for 15s per 100 lbs. He accordingly made an auction, and rented his farm, and turned his attention to literary pursuits. We need scarcely add, that the individual alluded to, is none other than the writer of this article.

We admit that no colonial legislation can raise the price of produce in England, but we consider that it by no means "follows that no duty on our frontier can permanently raise the prices here. Canada is yet a young country, and does not even produce enough agricultural produce for the consumption of her own population. In corroboration of this statement, we would add, that by reference to the returns lately made, that the British North American Colonies, during the years 1836, 1837, and 1838, did not export a single bushel of wheat, and in 1839 exported only 27 quarters, and in 1840, 8192 quarters, most of the latter being the growth of the Western States. In Canada produced a large surplus of wheat, pork, beef, butter, cheese, and other staple

commodities, then the English market prices would rule the market prices here, and a duty on American produce would be a matter of trifling moment. It is needless to occupy much space with this subject, but we shall, at all times, feel it to be our duty to guard the true interests of this naturally fine country, by publishing plain unsophisticated facts.

NEGLIGENCE AND ERRORS IN AGRICULTURE.

I propose as a very proper subject for your journal, to point out some of the negligence and errors that farmers allow themselves to indulge in or commit. I have often thought, and still think, that one of the most useful periodicals that could be published, would be one for the correction of errors, called, if you please, "Erratur." Scarcely less valuable, may I not say even more valuable, would be the "Detector of Negligence;" but if both were combined, who can conceive of the value of such a work to the farmer? But enough of introductory; let us proceed to the discussion of the subject.

I believe farmers lose as much by negligence as by bad cultivation. Let me illustrate: Whenever I hear a man complain that his grounds are overrun with thistles, with ox-eye daisy, wild carrot, chess, nut grass, &c., &c., I at once say to them, there was a time, and that not long ago, when you might have prevented this evil with five minutes labour. When you first saw that villainous plant on your land, there were but one or two, or half a dozen, and you could have destroyed them with a dock extractor or hoe in a few minutes, but you neglected the opportunity. The next year their seeds were scattered over every field, and you might even then, by a few hours' exertion, have exterminated the whole family; but now their name is legion, and your small force is inadequate to their extirpation, except at the expense of at least a season's crop. This is not all. Your more careful neighbours, on whose grounds a vicious weed was never seen to grow before, are out with their weed-hooks, &c., endeavouring to destroy a noxious weed that they find springing up in all parts of their fields *from the seeds blown from your fields*, and wondering whence they come. Would you do justice to yourself and to all your neighbours? In all your walks over your fields carry in your hand a weed-hook, with such fixtures on the ends as will enable you to pull up a narrow leaf dock by the roots, and never allow one of these or any other noxious weed to stand one minute after your first discovery of it. Do not, as many negligent farmers do when they see a weed of this kind, pass on, saying to yourself, "I will send a hand to destroy this thing, on my return to the house." That is not the way to destroy it. You may and most likely will forget it, on your return to the house; the hand may not be able to find it: he may not destroy it effectually, if he does find it; he may not look for it, (because the land is not his, the crop to come is not his, he is sure of his month's pay at all events, he has no interest in its destruction.) In all your walks over your farm, let the staff in your hand be a well constructed weed-hook; you can walk as well and protect yourself as well with such a staff or cane as with any other. Now this is the way to rid yourself of all noxious weeds, or rather to prevent their formidable appearance. Begin at the beginning, with these pests, or with anything else. Put a new rail in that panel, in place of that rotten one yonder; do it now, don't wait till the broken rail invites some stray animal to leap into your cornfield, and in doing so, breaks half a dozen other rails. Take a spade and drain off that pool of standing water in your wheat field yonder, and as you go along cut off that summer sprout or young shoot that is just starting from the limb of that apple tree, that favourite tree of yours, and mind, hereafter, don't let such things grow on any of your trees. Take a small spade and dig up all, every one, of those butter cups, (*Ranunculus bulbosa,*) in your cow and sheep pastures, and as soon as you see a single plant of that poisonous plant hereafter, destroy it instantly. Don't you know it is one of the most deadly poisons to cattle that can be found. It does not kill, it is true, at once; but it is a slow poison, and ultimately kills any ordinary animal that eats it; besides, it poisons the milk of cows, and is supposed to be the cause of the "milk sickness of the west.

Errors in farming or agriculture, are as numerous as instances of negligence, and even as deleterious. That was a capital error of yours, sir, in supposing that because you had a thin soil with a clay substratum, you must not plow deep. Why, my dear sir, if ten years ago you had begun to plow deep, you would at this time have had a deep, soil, instead of this thin skin that is made still thinner every time you *scratch* it. Plow deeply, as deep as you can, every time you plow, and in a few years you will have no reason to complain of short crops from drouth, or of winter killing from hard winters, nor of short crops from any thing else. Don't try too much of it! Try all new things in a small way. If you had tried but one acre of that new spring wheat, and kept trying one acre till you found it to be, or not to be, what it was cracked up to be; or if you had tried but one bushel of those new potatoes, for two or three years in succession, or if you had tried a quarter of an acre of that new Spanish clover, till you had found out what it was worth—if you had done all these, you would not now be complaining of loss by experiments. Go upon, in all cases, the wise proverb of Solomon, or St. Paul, I forget which, "Try all things, and hold fast that which is good." But Solomon or St. Paul, whichever it may have been, meant that you should "try all things" in a small way, until you found them "good."

Errors in judgment are so numerous, so universal, that is difficult to point out examples; there are so many of equal importance, that we can hardly choose which to take; but that farmer yonder who throws his stable manure out of the window of his stable, on the side of the hill, and allows it to remain there from month to month, to be washed by every rain and bleached by every day of sunshine, commits not a greater error than he who purchases manure at a distance, employs teams and hands to haul it to the farm, all at a heavy expense, and at the same time overlooks, or omits to avail himself of, the numerous sources of manure that are staring him in the face every hour of his life on his own premises. "My father hilled his corn, and made good crops," says one; forgetting, as it would seem, that his father's land was new and could "stand any thing." "I have the tallest corn, and will have the greatest crop of any in these parts," says a Saratoga county farmer who had obtained some seed of the tall southern corn, in a tour last year to the south; forgetting, or not having recollected, that corn that may make a good crop in the south, will not necessarily do so in the north, until the first of October nipped all his prospects in the milk. He had not duly considered that plants have their climates as all things have their seasons.

But I must bring my discourse to a close, and will do so by a summary illustrative corollary: Two white millers, or moths, entered the gardens of two citizens in the spring: one, of course, in early. The owner of each garden was present, and each saw the little creatures. One of the citizens instantly caught and killed the insect; the other allowed it to pass on, paying no attention to it. In midsummer, the garden of the first citizen was free from caterpillars; that of the other was completely denuded of foliage, with bugs and offensive insects on every shrub and plant. "Why," says the latter to the former, "how happens it that you have no caterpillars, while my garden is devoured by them?" "I killed the first miller," says the former, "you let it live, lay its 500 eggs, which in two weeks turned out 500 caterpillars, and then in their turn, in a few weeks, each 500 more, and so on till you have your millions of insects, and I have none.—*Albany Cultivator.*

GYPSUM OR PLASTER.

Gypsum is the third principal salt of lime which exerts a powerful influence on plants, and is the most valuable of all our mineral fertilizers. Much variety of opinion has been entertained respecting the manner in which it exerts its influence or produces its effect on plants; and these opinions can scarcely be said to be harmonised, even at the present time. Davy was inclined to consider it a direct food for the plant, as it is found, to some extent, in those plants on which it exerts the most power. Chaptel referred its power to its stimulating agency on plants produced by its action when dissolved in water. Liebig ascribes its value to giving a fixed condition to the nitrogen or ammonia which is brought into the soil, and is indispensable for the nutrition of plants. Dana, to the action of lime and acid of which the gypsum is composed on the organic matter and silicates of the soil. He says: "It seems almost incredible that so minute a portion of mineral can act at all; yet how beautifully is the result explained by the principle that plants decompose first this salt; the lime, (for plaster is a sulphate of lime), then acts on gein, which is thus rendered soluble; while the acid, (the oil of vitriol or sulphuric acid,) immediately acts on silicates." It seems very probable that no single one of these suppositions will be found able to account in full for the action of plaster. That of Dr. Dana appears to approach as nearly to a solution as any of them, if we extend his term "silicates" so as to embrace those combinations formed by the union of the acid of the gypsum with the ammonia, after its separation from the lime.

If the action of plaster was due to its fixing ammonia alone, then it ought to be equally efficient at all times and places, which it certainly is not; or if it acted directly as nutriment, then its action would be as constant as that of rotted manure or compost, which farmers well know is not the case. Plaster does not act as usefully in the vicinity of the sea, as in the interior; and on heavy wet soils, is scarcely felt at all. Light sandy soils, or loamy ones, are those on which plaster acts the most sensibly; and clover, lucerne, potatoes, cabbages, and the leguminous plants, such as peas, vetches, &c., are the vegetables on which it exerts the most powerful influence. It is much valued as a dressing for wheat, not so much, perhaps, for its direct action on that plant, although that is not trifling, as for its effect on the growth of the clover and other grass seeds, usually, in wheat countries, sown with this crop. So marked is the influence it exerts in this respect, that plaster, clover and wheat are always associated in the mind of the most successful wheat growers; and its use is the most extensive in the best wheat growing districts of our country. In the minds of many, a senseless prejudice has existed against plaster, on the ground that it the more speedily exhausts the soil, and that the heavy crops at first obtained were the price of ruined farms. It is doubtless true that the man who uses plaster on his farm, who takes from his soils all he can get, and returns nothing to them, will soon find his soils worthless enough. He who intends to farm it in this way, should avoid plaster; but let any farmer alternate wheat and clover; husband and apply his manures; feed off his clover in his fields, or to his stock in their stalls; let him not spare his grass seeds in seeding, or his plaster in dressing, and his farm will never run down. Such men need not fear plaster.—*Geyler's Brief Essays on Manures.*

THE AMERICAN AGRICULTURIST.

The first Number of the Third Volume of this talented magazine has come to hand, and displays as much ability and spirit as usual. As an evidence of the high opinion we entertain towards its able editor, A. B. Allen, Esq, and, in fact, the work itself, we shall condense from its columns, monthly, much of the information it contains, which we feel confident will add to the character of our Journal. We may at times question the correctness of some of the statements published in our American cotemporaries, but it is only honest and just in us to acknowledge that the *American Agriculturist* is less liable to publish absurd reports than many with whom we have the honour of an exchange. Indeed, the Journal before us has earned for itself a character during the past two years which but few enjoy. We feel proud in having such a help-mate in the cause of agricultural improvement.

Preventive against the turnip fly.—The principal objection urged against raising turnips by the Canadian farmers, is that the young plants are so liable to be cut off by the turnip fly, that it very frequently happens that the seed has to be re-sown a number of times. Now all this difficulty will be obviated, if the following be correct, which none have a right to dispute, unless their experience prove to the contrary: "Mr. Johnson informed us, by mixing one pound of snuff, two pounds of sulphur, and two bushels of ashes together, and sowing this mixture broadcast upon the turnips as soon as they appear above the ground, it would completely prevent the ravages of the fly. If soot can be had, it is also an excellent ingredient to add to the mixture." The above gentleman has also been very successful in removing large trees, by taking a large ball of earth with them, which we presume is performed in the winter months.

Shelter for stock.—An excellent article by the editor on this subject, which, if space would admit, we would insert. We would, however, urge upon our readers the necessity of duly attending to this important branch of farm labour. The winter season is the time for preparing for building. Logs may be drawn to the neighbouring saw mill; lumber and boards drawn home, and piled up on the spot for future use. Stones for a substantial foundation, if previously piled, should be drawn to the site for building; and in fact all the necessary steps for building should be properly executed whilst the snow is on the ground.

New York Farmers' Club.—The reports of the sayings and doings of this Association, which reach us *semi-monthly*, are truly convincing proof that such periodical social meetings for discussing agricultural topics, may be ranked among the first means for improving agriculture. In fact we feel so established on this point, that no exertion or pains on our part shall be spared to induce our fellow countrymen to adopt this principle for action throughout every portion of the densely populated sections of the Province. The value of lime, marl, salt and ashes, leached and unleached, as fertilizers, are spoken of, and experiments reported, in an intelligent and highly laudable manner. A farm, which a few years since was purchased for a trifling sum, by frequent top dressings of marl, is now worth $100 per acre. The advantages of draining is clearly shown by a New Jersey farmer, who obtained on his drained land thirty-two bushels of wheat per acre without manure, which formerly was worthless for that crop. The draining tools were exhibted, and their use explained. A conversation took place on the usefulness of birds destroying insects, insects in general, the disease of the potatoe, &c. We shall feel much pleasure in making out a monthly synopsis of the discussions and discoveries of the New York Farmers' Club; and shall also use our influence with the farmers and gardeners of the neighbourhood of this city, to induce them to follow the noble example set them by their neighbours in New York.

Disease in potatoes.—This disease is attributed by the editor, to the excessively hot, dry weather of June and July, followed by long protracted rains, which set in the first part of August, continuing the remainder of the summer, and during the fall, thus checking the root in the first instance, and then giving it a watery, forced growth, so long and late, as to prevent the potatoe properly ripening. In this diseased state they have been found very injurious food to stock, occasionally even causing death. No better remedy is yet found to prevent the spread of the rot among potatoes, than spreading them out on a dry floor in a warm building, so thin as not to touch. The disease spoken of, so far as our knowledge extends, is unknown in Canada. To show the variation of the climate on the North American continent, a better illustration could not be given than the one mentioned by our esteemed friend of the *Agriculturist*. During the whole of the month of August, and a great part of September, the weather was remarkably fine and dry in this Province; so much so, that the crops of every description, excepting potatoes, indian corn, and turnips, were secured in a most perfect condition, and without a single shower of rain to prevent progress in the business.

Scalded milk for butter.—Another evidence is here given of the value of this method. The editor says that the butter made from the cream is as yellow, sweet and solid as it made in June. It appears that this plan is now practised by all good butter makers in the vicinity of New York, who have the same results as detailed above.

Devon cattle.—A masterly article, penned by that illustrious breeder of Berkshire hogs, and various other descriptions of improved breeds of stock, L. F. Allen, Esq., of Black Rock, occupies upwards of four pages of the *American Agriculturist*, which gives a lucid history of the origin, description, and utility of the above breed of horned cattle. It would be out of the question to follow the writer through the whole of the evidence which he has brought to bear, to prove that the modern improved North Devons are superior to any other breed of cattle for general purposes of farm labour. We shall content ourselves with treating our readers with two copious extracts, which will give a description of the breed, and his character as a working ox:

"DESCRIPTION.—In size the Devon is medium, and compares with the native cattle of our country when lean, but with a greater aptitude to take on flesh when fed, and a much higher degree of proof when slaughtered. The head is delicate and short, with a broad and slightly indented forehead, a high, gracefully upturned, yellowish horn, a clear, prominent eye, enclosed in an orange-coloured ring; neat and thin in its face or chaps, a small, delicate muzzle, of a clear orange or slightly mottled colour, the neck finely set on, and originally throaty, with a considerable dewlap reaching to the brisket, but in the best improved animals of the present day, clear, and without superfluous skin. The shoulder is slanting like that of the race-horse, giving him great activity, and set on to the ribs with the smoothness and beauty of a deer, but well spread at the elbow, developing a deep and wide chest, with a sufficiently projecting brisket. The arm is broad, tapering gradually to the knee, with a leg below of the straightness and delicacy of the blood horse. The ribs arch broadly out from an even back, leaving great compass of body, with a full and deep flank; the loin is broad and level; the hips wide, high, and well spread, giving an amplitude of carcase extraordinary for its *apparent* size; the rump long, with deep, heavy quarters; the buttock round and projecting, running down to a delicate gambril joint, and terminating in a hind leg of surpassing neatness and symmetry; the tail is set on high, and in a horizontal line with the back, of the exact shape and gradual taper of a *drumstick*, terminating in a thick brush at the extremity, with a moderate tuft of white hairs; the skin is of medium thickness, when on a well-conditioned animal, unsurpassed in handling; the colour is a deep blood or mahogany red, with an occasional white udder, or slight white strip under the belly. These, the world over, are the true characteristics of the pure North Devon, and so deeply are these qualities imbodied in the race, that a good judge would as quickly detect a spurious cross in their appearance, as if in a thorough bred Arabian or blood horse. The Devon has, indeed, by partial writers, been styled the Arabian of neat cattle.

"UTILITY.—As an *economical* animal, the Devon may be classed under three different heads.

"First, as a working ox. In this important department of American agriculture, nothing can compare in activity, beauty, and close matching, with the Devon. They seem constituted emphatically for the yoke. Their docility, honesty, and vigor, are proverbial. Although not attaining the heavy size of the full grown Hereford or Short-Horn, on the medium and lighter soils, a pair of Devon oxen annually plough as much land, and as well, too, as an ordinary pair of horses. High crosses of the Devon and native American cattle have frequently come under my observation in working oxen, and in both performance and appearance, nothing could exceed them. They are sufficiently heavy for all useful farm work, possessing in an eminent degree the horse-like qualities of superior strength, speed, and bottom; and when at maturity, are unrivalled for the stall and the shambles—taking on fat with a facility that no other animal can surpass. A farmer wishing to breed working oxen or steers, has only to select his quota of native cows for that purpose; the finer in form the better, but it matters little what *colour* they be, so that their *quality* be good. Let him select a well bred North Devon bull, and cross upon these cows, and ten to one, so deeply established is the character of the race in the bull, every individual calf will be a mahogany red in colour, with a clear, yellow, upturned horn, and possessing such decided Devon characteristics, that, if steers, at three years old, dead matches could be made of any couple in the herd. To such farmers as use ox-labour on their farms, (and were our working cattle of a better quality, it would be much more extensively practised,) it is unnecessary to speak of the enhanced value of raising a variety so easily matched, of such uniform beauty in appearance, and of great activity in their labour. It is almost superfluous to remark, that a still higher cross, to three-fourths, seven-eighths, or even thorough bred, will give an increase in value for all useful purposes, and when it is known that this class of cattle at six years old will girth behind the shoulders six and a half to seven feet and upwards, in fair working condition, all cavil will be silenced."

No breed of cattle would be so serviceable for the Canadian farmer, for all practical purposes, as the North Devons. Every farmer who has seventy acres of cleared land, requires

a span of strong, serviceable horses, and a yoke of active working oxen. The breed in question cannot be excelled for working in the plough. This breed was held in high estimation by the late Earl of Leicester, who was acknowledged on all hands to be the best judge in England.

We earnestly recommend the introduction of the North Devons into this Province, to the notice of spirited breeders of stock, and we trust that proper encouragement will be given by Agricultural Societies, as an inducement for such a movement. A number of late importations from England into United States have been made of the breed in question, which are highly spoken of by competent judges. By reference to the author of the letter from which we have copied the above extract, the persons who are in possession of the choicest herds may no doubt be made known, and any other information on the subject, we feel confident, will be communicated with much pleasure by our friend Mr. Allen.

Origin of chess.—A correspondent states that he is satisfied that wheat and chess are too distinct species of grain; and that if you sow either pure, you may expect to reap that which you sow. As a proof of that principle, he adduces the fact, that in the whole State of Maine scarcely such a thing is known as chess. As we have elsewhere informed our readers, we have made a number of experiments, and have so far tested the matter, that we feel confident the growth of this noxious plant may be attributed to the extreme carelessness of the farmers.

Culture of hemp seed.—A correspondent states that the ground for hemp should be ploughed deep; that it should be manured heavily; that the seed may be sown very early, as the plants will stand severe white frost, without injury. That when the crop is intended exclusively for seed, it should be planted in hills two feet and a half or three feet each way. As a guide for the planter the ground may be slightly checqued with a plough. About fifteen seeds may be dropped at the crossing of each furrow, covering them with a hoe two inches in depth. When the crop has been up ten or twelve days, it may be harrowed with a single harrow, the horse walking in the space between the rows; and it may be immediately harrowed again in the opposite direction. The hemp should be thinned out by hand, so as to leave about five stalks in a hill, and these not crowded together. When it attains the height of ten or twelve inches, it should be well worked with a cultivator. If the ground is not very clear of weeds, it should be worked over again with a light one horse plough; and when the hemp is about three feet high, it should be again thinned, so as to leave not more than three stalks in a hill. About one week after the hemp begins to blossom, all the male stalks, which can be distinguished as such, should be cut down, to give more room and air for the residue. The writer calculates, that if his plan be honestly acted upon, that seventy-five bushels of hemp seed may be grown per acre. The plan here recommended might answer, but we would rather try it on a small scale than a large one. By thorough cultivation and liberal manuring, forty bushels of hemp seed may be grown per acre, by sowing the seed broadcast, at the rate of one bushel per acre; and the lint will cover all expenses, for the purpose of making inferior description of ropes.

The printer of *The British American Cultivator* is under the necessity of apologising for the delay which has occurred in the appearance of the January number. An extraordinary pressure of business has been the occasion of the interruption, but such an occurrence will not again happen

SIBERIAN SPRING WHEAT.

Since the letter of our esteemed friend, Mr. Knowlson, and our accompanied remarks went to press, we have received three communications upon the subject of the Siberian Wheat. One from Mr. K in answer to a letter from us, in which he states that he would endeavour to procure five hundred bushels in addition to what he has on hand, which will be warranted pure—and that only two years since he procured at considerable trouble and expense, three bushels of this Wheat, and from the favourable character then given of it, his expectations have been more than realised.

The second is from John Walton and Jonathan Stevenson, of Peterboro', who state that they have 1000 bushels of Siberian wheat, of good quality, and are willing to dispose of it for 5s. per bushel, delivered at that place. As they intend to sell it immediately, orders that reach them after February cannot be attended to. Their terms are cash upon delivery.

The third is from P. Hughes, Esquire, P. M. Emily, who states: "I was not aware that this variety was less plenty in other sections of the province than in this. I do not hesitate to say that at least half of the wheat raised in Emily, last season, was Siberian, and that very little of any other kind will be raised next season. The Siberian grown here is quite as large and full in the berry as good fall wheat, rather shorter, but more plump. As I learn from your article, that it is wanted for seed in your section of the country, I will preserve a bin of the best samples I purchase, in order that I may be able to supply any of your subscribers, and others, who may want it for that purpose. I will also have a bin of it preserved at the store of Charles Hughes, Esq., at Port Hope, for a like purpose, and you may direct those in want of the article to either place. I will take particular care that there shall not be the slightest mixture of other kinds, and that it shall, in other respects, be as clean as possible. I will furnish it at this place for four shillings, and at Port Hope for four shillings and sixpence, per bushel."

We feel confident that it would be a great acquisition to the Agricultural community, if the Siberian Spring Wheat were as abundant in every section of the Province as in the neighbourhood of Peterboro. For our part, we shall not only sow a large quantity ourselves, but shall persuade our subscribers to do so likewise. As we have pledged ourselves to Mr. Knowlson, we are in duty bound to forward him any orders we may receive. We feel confident that the whole will be required for seed before the month of April next.

POSTAGE.

In consequence of the reduction of the wholesale price of the *Cultivator*, the receipts to the publisher will not average more than 2s. 6d per copy, for the edition,—the subscribers will, therefore, in future, have to pay the postage, being under the new arrangement, only one half-penny per number. The publisher flatters himself that no one will complain of the present price of the *Cultivator*, being, when all things considered by far the cheapest paper to the British American farmer, published on this continent.

An Agricultural Society purchasing 100 copies of the *British American Cultivator*, would have to pay 50 dollars subscription, and 10 dollars postage,—whereas, for the cheapest agricultural paper, published in the United States, the cost of 100 copies would be 40 cents per copy,—equal to 40 dollars per 100 copies,—and the American and British postage would equal other 40 dollars, being a difference in favour of the *home production* equal to 20 dollars per 100 copies.

When the statistical accounts of American production,—Reports of Agricultural Shows,—lengthy articles on the cultivation of Rice, Tobacco, Cotton, Silk, and a number of other products, that cannot be produced in these provinces with any certainty of profit, together with the difference of price being taken into account, we feel confident that the advantages in favour of our magazine will far exceed any prejudicial tendency that the change in the Post Office department may have effected.

In our opinion, when copies are ordered by Agricultural Societies, the subscribing members who receive them ought to pay the postage, especially if they be ordered by Township Branch Societies.

ON THE CULTIVATION OF HEMP AND FLAX IN THE WESTERN DISTRICT.

We have read, with great pleasure, a valuable communication in *The Western Express*, published at Sandwich, Western District, on the subject of cultivating these plants. The article occupies an entire page of that Journal, and is written with such good taste, that it will, we trust, have the effect of influencing the farmers in that section of the country to engage heartily and unitedly in cultivating this crop. Hemp seed, of a good quality, may be had at Chicago, Illinois, for 3s. 9d., and at Rochester for 6s. 3d., per bushel. If each farmer would sow only one acre, and by making known to the public the quantity sown, in the township or district, persons with a little capital might be readily found, who would purchase it on the ground, at prices that would handsomely remunerate the grower. The deep black vegetable mould, which abounds in Canada, and especially in the Western District, would produce hemp in great abundance, and of the strongest texture.

A Mammoth Cheese.—We notice in the columns of an exchange paper that a Cheese has been presented to his Excellency Sir Charles Metcalfe, weighing 384lbs. which was made on the farm of John L. M'Donald, Esq., by Mr. Daniels Havens, whose celebrated cheese is well known in the Kingston Market.

Good Advice.—Quit your pillows and go about your business, if you have any—it is the first injunction, if not seek some. Let the sun's first rays shine upon your head in the morning, and you will not want a good hat to defend you from its scorching rays at noon. Earn your breakfast before you eat it, and the sheriff will not deprive you of your supper. Pursue your calling with diligence, and your creditor shall not interrupt you. Be temperate, and your physician shall look in vain for your name on his day book. If you have a small farm, or a trade that will support your family, add a hundred dollars a year to your capital, be contented.—*Exchange paper*

EMIGRATION DEPARTMENT.

The space allotted for this department of our journal is so circumscribed, owing to the great importance of the several other topics which will necessarily engage our attention; that it might be thought by some an act of supererogation, on our part, to engage any portion of our paper with subjects we could not reasonably anticipate that the results from which would be fraught with any considerable perceptible good to the Agricultural community. We would however observe, that our object in occupying a portion of our columns with subjects of interest to the newly-arrived emigrant, and other classes of individuals who are comparative strangers to the natural and artificial resources of this noble Province, is partly a desire to draw the attention of the public to the importance of giving encouragement to a wholesome flow of emigration to our shores, and to establish, if possible, permanent profitable employment for the labouring classes, and to secure a safe investment for capital; and last, but not least, to endeavour, as far as in us lies, to bring this highly favoured portion of the British Empire into more general favourable notice, both at home and abroad. How far we shall be successful in accomplishing our purpose remains to be seen; but one thing is certain, unless some one makes the attempt nothing will be done The Canadian Press in general appears to be too much occupied in discussing subjects which have already engendered a vast amount of hatred and party spirit, and which so completely engross their columns, that the great productive interests of the country, in many instances, instead of progressing, are allowed to retrograde. To counteract this deleterious influence, which acts on the vitals of this infant Colony, we shall endeavour to set an example worthy of being followed by every well-wisher to this country.

Climate.—It has been said by some that the climate of Canada, especially the long winter, is prejudicial to its being a great Agricultural country. We would beg to controvert this statement. The few past years experience have given abundant proof of the vast importance of good winter roads to Agriculture, and in fact to every other branch of industry in the Province. For the past seven years, in every alternate year, there has been excellent sledding equal to artificial railroads, which has lasted for a period of fourteen weeks, and the intermediate years have been celebrated for the scarcity of snow upon the ground, and for mild humid weather. The seasons in which snow and frost were prevalent, every thing appeared lively, and the reverse was the case during those seasons which were noted for the opposite extreme. The present season up to the 20th inst., has been remarkable for its mildness and English-like climate, and all with whom we have conversed on the subject agreed with us, that about three months sharp frosty weather, with a covering of twelve or eighteen inches of snow upon the ground is decidedly the most suitable season for general business, and best adapted to the peculiar circumstances of a new country.

It has been said, though not of late, that the climate was peculiarly trying upon the constitution of foreigners; but experience has proved the contrary to be the case. We find that inhabitants, old and young, native born and foreigners, enjoy as good general health as the people of any other country. Indeed, we have, over and over, heard the Europeans eulogize the climate of this colony by remarking, that bad colds, coughs, and consumptions are far less frequent than in Britain, an evidence of which they have cited to the circumstance, that where large congregations are assembled in this country for worship, or for any other purpose, where order and decorum are of requisite observance, the assemblage suffered little or no annoyance from the effects of coughing, when compared with similar meetings in the British Isles.

Soil and Products—The soil of Canada is capable of producing, under good management, as many bushels per acre, of wheat, barley, oats, pease, potatoes, and turnips, as that of any other country. Numerous instances have come under our own observation, in which the crops, above enumerated, have yielded from fields averaging from five to ten acres each,—wheat, 45 bushels per acre; barley, 60; oats, 85; pease, 45; potatoes, 500; and turnips, 1000. A country that contains a breadth of territory sufficiently extensive to comfortably accommodate a population of some eight or ten millions of souls to be employed in agricultural pursuits—and the soil and climate of which is so peculiarly favourable for producing and maturing crops, that with good farm management, no country can be found that exceeds its average produce, from a given breadth of land. Certainly a country possessing such traits of character, is deserving of every attention, both by its own inhabitants, and the great nation to which it forms a part. That it will receive in future such attention, there can be no manner of doubt. The great thing necessary to be done, is for all interested parties, both at home and abroad, to unite in developing its resources. This must be accomplished mainly through the aid of the press, and by the agency of associations based on such broad and philanthropic principles, that our mixed population, composed of almost all parties, nations, and tongues, may unite cordially and zealously in the good work. In consequence of the newness of the country, and the indifference which has been manifested by the rich and well educated, in effecting improvements in rural pursuits, the products of the country are not as various as they otherwise would be; but we have good grounds for entertaining a hope that the agricultural products, for home consumption and exportation, will shortly be more varied; and also that greater encouragement will be given to manufacturers of coarse descriptions of fabrics, and to the working of the numerous minerals, which abound in this province.

Entertaining such a high opinion of the country, and believing that no part of the continent of America presents to the view of intending emigrants, greater natural and artificial advantages, we shall, at all times, give evidence of much zeal in the cause of our country's welfare. In elucidating facts we shall always endeavour to keep within the bounds of truth and reason, and shall not knowingly give offence to any, nor give just grounds for the criticism of our learned cotemporaries.

Without adding to this exposition of our views and intentions, we shall endeavour to confine ourselves, in future, strictly to the subject under discussion. We shall devote about two pages in each number to topics which will have a relative bearing upon the subject of emigration.

COMMERCE AND RESOURCES OF BRITISH AMERICA.

(From Hunt's Merchants' Magazine)

Upper and Lower Canada contained 270,718 inhabitants in 1806, 333,250 in 1816, and 580,450 in 1824.

The population of the four districts of Lower Canada, in 1831, was—

Quebec,	137,126
Montreal,	284,659
Three Rivers,	70,157
Gaspe,	9,505
Total,	501,448

The increase in the numbers of the people, by natural means, is rapid. The difference between the births and deaths, in the six years from 1831 to 1836, is equal to an average annual increase of 2 2-5 per cent. But this increase is importantly assisted by emigration. In the same six years, the number of emigrants from the United Kingdom, who landed at Quebec and Montreal, was 194,936. The greater part of these went forward to the Upper Province, and some of them probably crossed over to the United States; but, on the other hand, a number, probably greater than those, of British emigrants who landed at ports in the United States, proceeded onward to Canada. During the six years, (1831 to 1836,) the number who landed at the Port of New-York, alone, was 169,354. The increase altogether, in the district of Quebec, Montreal, and Three Rivers, between 1831 and 1836, was 70,789. The population of the whole of Lower Canada, in the latter year, was supposed to exceed 600,000.

The population of Upper Canada, in 1831, had reached 296,544; making the numbers in the entire province, in that year, 797,982. In 1836, they were but little, if at all, below a million. At this time, (1843,) the Canadians have probably increased to 1,250,000, being about equal to the population of Denmark, exclusive of the duchies of Sleswick Holstein.

The trade of England with this part of her dominions is considerable. The exports exceed in value the return shipments, as must be the case while any considerable number of British subjects are emigrating thither. The custom-house accounts do not, indeed, state the full measure of this excess, since no entry is made of the greater part of the property taken with them by emigrants; and which, although the value may not be great in the individual cases, must amount to a considerable sum in the aggregate.

The total imports and exports of Canada, in 1839, was, imports £12,686,983; exports £7,844,411.

The value of British cotton, linen, silk, woollen and iron manufactures, that found a market in Canada in 1839 was £1,148,552.

The value of ashes, grain, and timber, the most important articles of Canadian produce that were exported in 1839, was £1,054,912

The fisheries for cod, herrings, mackerel, and salmon, carried from Lower Canada, furnish, after supplying the inhabitants of the Province, a yearly export, chiefly to our West India Colonies, to the value of £50,000 to £80,000.

Agriculture must necessarily, for many years to come, engage the chief part of the attention of the Canadian population; and, if even the assumed necessity for emigration thither, from the parent country, should cease, she will continue to find customers among them for her cheap manufactures, although the commonest articles of clothing and household utensils have long been produced in their cottages. It was found that, in 1830, there were 13,400 domestic looms in Lower Canada, estimated to produce about 1,400,000 yards of coarse woollen cloth, 1,000,000 yards of common flannel, and 1,350,000 yards of linen. There were, at the same time, in that division of the province, 90 carding, and 97 fulling-mills, 3 paper-mills, 395 grist-mills, and 737 saw-mills, many whiskey distilleries! and 7 iron foundries. Sugar is very generally made for use by families, from the juice of the maple-tree.

In Upper Canada, in 1834, the weaving of woollen cloth was a common occupation in the cottages. There were numerous distilleries, breweries, tanneries, fulling-mills, and carding mills. The number of grist-mills was 551, and of saw-mills, 843.

The growth of this province of England, has been, and will continue to be, greatly stimulated by the advantage of easy communication which is offered through the navigation of the St. Lawrence, and the magnificent chain of lakes connected with that noble river. In aid of this natural advantage, some costly works have been completed, partly by private enterprise, and partly at the expense of England. The most important of these works, the Rideau canal, cost her a million of money. It is 135 miles long, beginning at Kingston, on Lake Ontario, and ending at the foot of the Chaudiere Fall, in the Ottawa river.

A WORD FOR THE BOYS.

From an American Paper.

There is one thing that some boys are much inclined to forget, but which they ought always to try to bear in mind, viz.: that they are *only boys*, and that it is their duty to endeavour to be contented to be so, until their turn comes round to be men. But they are, many times, in so much of a hurry that they cannot wait, they want to become men at once. They should recollect, however, that we have all had our turn in being boys, some of us, very probably were as impatient as they are, but somehow we all got through with it in a very short time, at least it seems so now, and so it will seem to them. But the particular reason of my mentioning this here, is, that some of the difficulties and troubles of life which the farmer's boy frequently has to encounter, and is apt to think a good deal of, will, in a great measure disappear when he comes to be a man. Such for instance, as arise from the inclemencies of the weather, as heat and cold and wet, &c. These, as he grows up to manhood, his frame will be better able to endure. And then the man, when he becomes the owner and manager of a farm, has numerous sources of encouragement and enjoyment which, of course neither the boy nor the hired man can be supposed fully to understand; particularly those arising from the contemplation of the profits which he expects to realize from the growth of his crops and animals. These it must be admitted, will and must hold a very prominent place among the pleasures of the farmer, and it is right that they should, provided they do not exclude others of a more exalted and ennobling nature. And it is a satisfaction to know that the most intelligent and best managing farmer is pretty sure to receive the greatest amount of profits. Every person, however, whether old or young employed, on a well conducted farm, who has a well cultivated mind and taste, and who is in the habit of observing the beauties of nature, will be sure to feel interested and gratified at the general success and prosperity. Now, in order that he may at some future time become an intelligent, successful and a happy and contented farmer, the first step for a boy to take is (I mean if he has not already taken it,) to form habits of *reading, observation and reflection.* What particular book he begins with is not of so much importance as that he begins with *some kind* of one immediately, and with a determination to persevere. And when he begins to acquire a habit of reading and study let him direct his attention to those subjects that will most surely prove useful and interesting in the end, although they may appear somewhat dry at first, particularly I would recommend those mentioned in my first communication, and others of a *scientific character.* And be not easily discouraged, recollect that the habit once formed for life, not *merely* of reading but loving to read. And what an immense advantage is to be gained by it. How wonderfully superior is the man who reads, to him who does not. The old excuse, so often made use of, that you have *no time to read*, is not to be tolerated, it is not true; the fact is, those persons who make that excuse have *some* time to read, perhaps but little, but they do not improve that little. If all the little *nooks and corners of time* are improved, such as waiting for breakfast and waiting for dinner, and showery days and evenings, &c. &c., you will be astonished at the amount of reading you will get through with in a year. By habits of observation, I mean taking notice of every thing that comes within our sight and observation, so that we can be able to recollect something about it, and give some account of it at another time. And also of distinguishing in our minds between those things which we think are beautiful and useful, and those which appear otherwise. Especially let the boy notice all the beautiful things about the farm, not only his father's farm, or the farm where he lives, but all the farms he sees, the buildings and the conveniences about them, the fences, the trees, the fields and particularly the domestic animals, let him learn to distinguish the particular points of beauty in the cow, the ox, the horse, &c. Let him try his hand in endeavouring to improve the beauty of his flock of chickens. By selecting only the *most beautiful to keep* for breeding, he will soon find that an improvement has taken place, and by the same process other animals are improved. By habits of reflection, I mean the power and practice of controlling our thoughts, and directing them to such subjects as we have thought and studied about before, and in general, to such subjects as may be said to be worthy of being thought about, instead of letting them run at random upon such things as they happen to light on, however unworthy they may be. And a boy who is studying Geology or Botany, need never be at a loss for a suitable subject for his thoughts. Whether he may be upon the farm, or whatever may be his business, he cannot fail of finding something to engage his attention and enquiry. Every new or unusual plant or weed that may meet his eye, will immediately attract his attention. Also every stone he may happen to turn up with his plough or hoe will be recognized as belonging to a particular class or family, and every one of rare occurrence or curious structure will be preserved and placed in his cabinet.

There is also another class of evils which are sometimes a sore affliction to the boy (and man too) but which do not necessarily belong to farming. I mean those that are caused by bad management, such as attempting to cultivate so much land that nothing can be done thoroughly, or *in its proper season.* Bad ploughing makes hard hoeing, and hoeing that would be tolerable if done this week, is abominable if put off two or three weeks. In fact, a farm half-ploughed and worse hoed is growing worse and worse from year to year, until, I must confess, it is enough to give one the horrors to look at it, much more to attempt to cultivate it. And of the boy whose lot falls on a farm managed in this kind of way, I will only say he has a *hard row to hoe.* But I hope he *will stick to it patiently, if duty* requires him so to do, but at the same time, form in his mind such a resolution as this. If I should live to become a man, and the owner or manager of a farm, I will endeavour to attempt to cultivate no more land than I can plough thoroughly, harrow thoroughly, and seed thoroughly. If he does that, and sticks to it until he can put it in practice, I believe he will find farming a much more pleasant kind of business than he finds it now to be, in the days of his boyhood.

UNCLE JONATHAN.

December 1, 1843.

PAYING DEBTS.—"What a pleasure it is to pay one's debts!" was the remark of a well-known writer, and the observation is certainly a just one. It seems to flow from a combination of circumstances, each of which is productive of pleasure. In the first place, it removes that uneasiness which a true spirit feels from dependence and obligation. It affords pleasure to the creditor, and therefore gratifies our social affection. It promotes that future confidence which is so very interesting to an honest mind. It opens a prospect of being readily supplied with what we want on *future* occasions. It leaves a consciousness of our own virtue; and it is a measure we know to be right, both in point of justice and sound economy. Finally, it is the main support of *simple reputation.*—*Boston Bee.*

When the leisure evening hour is employed by a family in reading the page of instruction, there grows up insensibly in the younger members a love of home—a sentiment incompatible with some of the worst vices, and favorable to all the virtues.

TO MAKE BISCUIT OR ROLLS.—Put two tea spoonsful of cream tartar finely pulverized, into one quart of dry flour, then dissolve three fourths of a tea spoonful of sup. carb. of soda into warm new milk, sufficient when mingled with the flour, to make the paste of the ordinary consistence for soft biscuit; then mix and bake, in the form of rolls or biscuits, for about twenty minutes. These directions, if strictly followed, will render the bread extremely light, and of a superior whiteness and flavor. *Albany Cultivator.*

TO COOK A BULLOCK'S HEART.—Wash it well and dry it thoroughly; then prepare the seasoning, made with crumbs of bread, thyme and parsley, or any meat herbs, and an onion chopped fine, with a little suet and some pepper and salt, all mixed together and put into the heart, the opening of which is to be sewn up so as to prevent the stuffing from getting out. Bake it, and while it is cooking, rub it occasionally with lard, to prevent the skin from becoming too hard.—[*Condensed from a article on cottage economy and cookery, in the Journal of the Royal Ag. Soc.*]

SIBERIAN SPRING WHEAT.

It gives us great pleasure in being able to announce to the friends of Agricultural improvement, that the above justly celebrated variety of wheat may be had in almost any desirable quantity for the purpose of seed, in the town of Peterborough and vicinity. We are also happy to notice that it may be had on very reasonable terms, considering that it has been so recently introduced in the country, and that no two opinions exist in regard to its superiority over the common varieties generally sown. If the difference between the Siberian, and the common varieties, be as great as that which very competent judges have asserted, we shall consider that if we be the means, through our Journal, of generally introducing it throughout the entire breadth of the populated portions of the country, that a lasting benefit will thus be conferred upon the class whose interests we ostensibly advocate and promote. Indeed, we are so sanguine on this point that we entertain the opinion, that from this one benefit alone will the country be amply remunerated, for all the exertions which have been put forth, by the few patriotic individuals who have so nobly came forward to advance Agricultural improvements in this Province.

The writer of the following letter has sent us a sample of the wheat in question, which is equal, if not superior, to that owned by the "King Farmer,"—we have exhibited it in this market to the largest wheat buyers in the District, all of whom have declared that it would command as high a price as the very best quality of winter wheat, and would answer well to mix with it for flowering purposes for shipment to England. Let this be as it may, one thing is certain, that if thirty bushels of spring wheat can be grown per acre for years in succession, it will very shortly diminish the growing of winter wheat. The accompanied testimony is conclusive proof of its adaptation to the climate and soil of the country.

We have frequently known forty bushels of spring wheat grown per acre, in peculiarly favourable circumstances, but we have never seen a sample so bright and so bold as the two which we have inspected of this variety. Agricultural Societies from one end of the Province to the other, would do wisely to purchase a number of bushels of the Siberian Spring wheat from our respected correspondent and appoint an agent to sell it out to the farmers in their respective Districts, at a price that would barely secure the return of the amount expended, to the Treasurer of the Society. If one individual could furnish five hundred bushels for a price less than a dollar per bushel, we should think that by a little extra exertion on his part, double this quantity might be had to supply the demand for the article. The officers of Agricultural Societies will, we trust, act upon the principle of adopting some expeditious and effective method of spreading this valuable wheat throughout their several fields of operation. A correspondence might be entered into at once with Mr. Knowlson, who would no doubt inform them to the extent, that orders might be supplied, and other facts connected with the crops of the Siberian, grown in that neighbourhood. In due time we shall give our opinions on the mode of managing land, to ensure a good crop of Spring Wheat, but in the mean time we would say that some of the essential features of the plan which we would propose will be found to accord with the practice of our esteemed correspondent. We have written for forty bushels of the Siberian, which we will require for our own particular use. If we could form an opinion from the many letters and enquires that we have received from various parts of the Province in relation to this variety we would judge that the whole 500 bushels would be disposed of in the course of two months.

N. B. As we frequently receive letters, the writers of which forget to pay the postage, we would take this opportunity to state that those who write to Mr. Knowlson on the subject of his Wheat, would do wisely to pay their own postage; and if they neglect to perform this piece of good breeding, Mr. K. would also do wisely to return their letters under cover, though subjecting them to double postage.

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CAVANVILLE, 27th *Dec.*, 1843.

SIR,—Having observed in the *Cultivator* for the current month, that you are desirous of obtaining the names of persons who are in possession of a *quantity* of the *Siberian Spring Wheat*, I take the liberty to say that I would furnish five hundred bushels of it, which I could engage to be pure. I could deliver it at Port Hope at any time during the present winter, and at a price something lower than what you seem to think it is worth.

I have grown no other kind of Wheat the two last seasons. I have found it to suit every kind of soil, and from the crop reaped the past season, I became so convinced of its superiority over any other kind of Spring Wheat that I have seen, that I determined upon sowing no winter Wheat the past autumn, although I had several acres on my farm, which I had summer fallowed and prepared for that purpose. I have reserved it all for the Siberian, with which I intend sowing it in the spring. I have had thirty bushels to the acre on a light soil, that I should have considered too poor for almost any other crop. It is remarkable generally for plumpness, and is always heavy and thin in the skin. The land for its reception should be prepared in the autumn, and as far as my experience teaches me, it appears that it is a matter of little consequence whether the land is ploughed in the spring before sowing or not—it cannot be sown too early, and should never be allowed to get fully ripe before it is cut. The only objection that I know of that can be urged against the Siberian Wheat is that of the straw being less nutritious for fodder than that of other Wheats.

I remain, dear Sir,
Your most obedient Servant,
J. KNOWLSON.

ST. CLAIR AGRICULTURAL SOCIETY.

A letter under date 2nd January, from the corresponding Secretary of the above Society, came duly to hand, the purport of which we beg to offer a few remarks. It appears that this Society has been established and mainly supported by gentlemen who are not really Agriculturists, and that the farmers themselves, as a community, feel little or no interest as yet, in the prosperity and movements of the Society. It is a lamentable fact, that the same influence which operates so prejudicially against the prosperity of the "St. Clair" Society is very prevalent throughout our land. There is scarcely a Society established for the promotion of Agricultural improvement, but what mainly owes its existence and support to the exertions and influence of merchants, gentry, and others, who are not directly connected with Agricultural pursuits. If the Canadian farmers are behind the age in their mode of farm management, and their noble calling is productive of less profits than other less honourable pursuits,—the cause must be attributed solely to negligence and the want of enterprise so notoriously manifested by the practical farmers. The Canadian husbandmen are only just opening their eyes to their true interests, and as there is a fair prospect of almost immediate improvement in Agricultural matters, we shall not chide our brother farmers for their past errors, but would rather praise them for every act worthy of eulogy, and point out ways and means for further amendment. The "St. Clair" Agricultural Society, as well as many others, have adopted the proper course to induce the farmers from the highest to the lowest in their circles of influence, to not only become Members, but active Members of their Society. They have placed the annual subscription so low, that none could possibly urge the scarcity of money as an excuse for not subscribing—and have also adopted the plan of subscribing for as many copies of *The British American Cultivator*, as their are Members to the Society. The information that this medium of communication will convey to the individual Members of the Society, and the several Members of their respective families, will be far more lastingly valuable than any premiums they may receive at the exhibitions. The information communicated through the journal, and the Agricultural premiums awarded at the periodical Shows, should go hand in hand in creating and advancing a stimulus for Agricultural improvement. In conclusion, the "St. Clair" Agricultural Society, have our warmest wishes for their future prosperity, and we would only add, by way of suggestion, that if the officers would purchase as many bushels of Siberian Spring Wheat, from the parties mentioned on another page of this Number, as there are Members to the Society, and sell a bushel to each, at a price that would ensure the return of the money to the treasurer, before the next exhibition, they would thus give conclusive evidence of the great importance of Agriculturists becoming Members of such Associations.

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MARKHAM VILLAGE.—While in the act of recording the sentiments of our esteemed friend of *Port Sarnia*, our Agent, Mr. Wm. Ketchum of Markham, called at our private residence, and informed us that the inhabitants of the above village had clubbed together and subscribed through him for forty copies of the *Cultivator*. The citizens of Toronto have already done more to support our efforts than the farmers in any individual District in the Province—and there are but few Townships that have exceeded the number subscribed by the villagers of Markham. We should think the the farmers who have not yet subscribed for an Agricultural paper would question their own judgement, and enquire the cause of so much interest being felt in the prosperity of Agricultural pursuits, by professional men, merchants, and mechanics, when, at the same time, so much indifference is manifested by themselves in the prosperity of their own exalted and noble calling.

THE AMERICAN FARMER.

The *American Farmer*, published at Baltimore, is received at our office, weekly, heavily freighted with practical and scientific matter, adapted to the interests of American agriculturists, which, we feel no hesitation in saying, is of a high and superior order. Many articles in this journal would be read with great interest, and be productive of much benefit to the subscribers of the *Cultivator*; but, as we on a former occasion remarked, that scarcely a tithe of the valuable information that comes under our inspection, can receive a place in our columns, so in like manner are we obliged to pass unnoticed much that is really useful in the journal, now under notice. The industry, talents, and good taste of the editor, are so happily combined, that scarcely a number is received, but what is read with the greatest degree of pleasure and attention, and believing that others would be as much delighted and benefitted by the contents of this excellent journal as ourselves, we shall treat our readers monthly with the substance of such articles as are adapted to our northern climate.

Work for the Month.—The editor never fails to enjoin upon his readers, the necessity of every description of farm labour being done in a proper and systematic manner. "With the husbandman it should be a settled principle to be always master of his time—to be always in advance of his business—in order, as the season comes round, that he may be prepared to avail himself of them, and have his work done in proper time. By pursuing a proper degree of system in one's arrangements, it is an easy matter to become the master of our time, and thus have whatever we may desire to have performed, done at the most eligible period and in the best way. After the use of the implements of the farmer, they should always be examined with care, if found to be in order, they should be put away under cover; if not in order, they should be repaired, and when repaired, safely deposited for future use. These kind of attentions should not be omitted by the farmer under any circumstances, as the relaxation of the performance of his duty, and in his vigilance over his interest, by the master, never fails to beget neglect on the part of his labourers; whereas punctuality on his part is ever the offspring of regularity on theirs. Therefore, it should be the business of all heads of families to be particular and exact in small things as well as great. And, while they should refrain from exacting the performance of more than can be complied with, they should firmly insist upon all their orders being fulfilled to the very letter." The editor recommends that steps should be taken immediately to thrash the remainder of the last year's crop of grain, to prevent further loss from vermin. A stock of firewood for a twelvemonth, should also be cut, drawn home, and piled under the wood-shed, so that the hands would not have to leave their summer's work, to chop or pick up fuel. Lumber, fencing timber, and posts, should be got out during this, and the subsequent month,—and drawn to the spot where they will be required for use in the summer. The horses should be abundantly littered, which will add greatly to their comfort; make the feed go farther, and add to the means of improving the land, and increase its products. Manure is the farmer's gold mine. Plaster should be sprinkled in the stables around the horses heels, to absorb the ammonia from their liquid. If you have no plaster, charcoal or marl, will answer, as the first of these is one of the best agents of absorption known, and has much affinity for ammonia; and the latter mostly has a sufficient quantity of gypsum in it to act efficiently. If good sheds are not provided for the stock, now is the time to prepare the suitable timber, and other necessary material for their erection, the ensuing summer. Cows should be well fed, and have comfortable stables, or else they will not yield milk or butter, of any considerable quantity. Sheep require a good shelter and plenty of bedding; besides hay, they should receive a small quantity of roots or meal daily, and be regularly watered and salted,—by such keeping their wool would be 25 per cent. better, than if poorly kept.

Salting of Stock.—"Stock of all kinds, should be regularly salted through the winter. A mixture of equal parts of salt, ashes, and lime, would be cheaper and better than salt alone, especially for horses,—we have seen this mixture, not only aid in giving a slick coat and loose hide to the horse, but cause him to void bots and other worms."

A rather humorous correspondent, in penning a receipt for cooking codfish, states, that "your paper is a common hive, to which every industrious bee will feel it his duty to bring as much honey as he can. All drones should have their stings extracted, and then be expelled society." Salt Fish should be put into a deep plate, and just water enough to cover it, the night you intend to cook it. It should not be boiled an instant; boiling renders it hard. It should lie in scalding hot water two or three hours. The less water is used, and the more fish is cooked at once the better.

Worms in Horses.—"When the horse can be spared, a strong dose of physic is an excellent vermifuge, so far as the long round worm is concerned, but a better medicine, and not interfering with either the feeding or work of the horse, is emetic tartar, with ginger, made into a ball with linseed meal and treacle, and given every morning, half-an-hour before the horse is fed. The small needle worms which inhabit the large intestines can sometimes be removed by physic, but when there is symtoms of much irritation about the tail, which is a sure indication that they have descended into the *rectum*; an injection of linseed oil, or of aloes dissolved in water will be a more effectual remedy."

The above extracts and compilations from the *American Farmer*, is only a preface to the copious extracts which we shall insert in our journal, for the edification of our numerous readers.

[TO THE EDITOR OF THE B. A. CULTIVATOR.]

The Briars, Glanford, *Dec. 19th*, 1843.

Dear Sir,—In page 163 of your 2nd vol. you state with a note of exclamation at the end, "We know of some Districts in which the Secretary of the Society receives a very handsome salary!"

As I am one of those Gentlemen, I wish to explain that in the apparent handsome salary I receive of £20 a year as Secretary and Treasurer, I pay all my expenses, which are very heavy, and for my loss of time I neither require nor do I wish to receive anything. I have always been of opinion that a person giving up much of his time was always, at least, entitled to have his outgoings reimbursed, and were it not for the unnecessary space it would occupy in your valuable Journal, I could easily shew that the handsome salary allowed to the Secretary of the Gore District Agricultural Society has, as yet, not covered his expenses—so fully impressed are the Directors with the trouble and expense, that the vote is "over and above the incidental expenses" which I have not, although fully authorized so to do, ever charged.

As your remark may cause reflections that would be unpleasant to myself, I trust you will insert this letter, and to make up for so much upon a private matter, I beg to assert, that our Society is doing a great deal of good to the country, and our Shows yearly improving, especially under the head of young Stock, and if the many wealthy and enterprising farmers would only send their best Stock to the Show Yards, instead of none, they would add honor to themselves and be a greater benefit to the country than at present. I also wish to correct your information that this District has the intention of sending two lawyers to Parliament. There are two spoken of but they have not the least chance.

Your's truly,

JAMES S WETENHALL,

Secretary G. D. A. S.

CURE FOR BOTS AND MURRAIN.

A writer in the *American Farmer*, who signs himself "J. W. J.," gives a number of instances in which he has been successful in curing the bots in horses by the use of lime, and in preventing the attacks of murrain by the same remedy. Having a few years since purchased a very fine horse he soon found he was diseased, and in spite of the various remedies administered, grew worse. Finding he discharged some bots, he suspected the difficulty might be found in them, and commenced giving him a tablespoonful of slacked lime three times a week in bread mashes. Pursuing this course two weeks, the bots began to pass off in large quantities; his appetite began to improve, and in six weeks he became well and sleek. Since this, he continued the use of lime among his horses with the best effect, and though he lost many before, he has lost none since from any cause. Spirits of turpentine he found produced no effect upon the live-voided bot, while if put into lime, they were perfectly dead in forty-eight hours.

Mixed with salt, and fed to cattle two or three times a week, or rather by allowing them always to have access to troughs containing the mixture, he deems lime, and we think with very good reason, an effectual prevention of murrain. Since he commenced its use, he has not lost an animal from this disease, though some of his neighbours who neglected this precaution, have lost nearly all their cattle by it. In one instance, a farmer living near him lost nearly all his stock by this disease, while the animals of a neighbour living within two hundred yards, and which ran daily with those that died, all escaped.—The owner of those that escaped made it a rule to fling them a handful of salt and lime every morning. At the west, where the murrain is very prevalent and fatal, lime and salt are becoming to be considered a specific, so far as prevention is concerned; and when it is recollected that the disease once developed is rarely cured, it would seem advisible to adopt the use of this mixture wherever danger is to be apprehended.—*Albany Cultivator.*

A Good Yield of Cheese.—Martin Griswold, of Vernon, Connecticut, produced this season from 17 cows, 7395 lbs. of cheese, being an average of 435 lbs. from each cow

ACCLIMATION OF PLANTS.

A sensible and eloquent writer in the American Journal of Geology, has, in a paper upon the "Acclimating Principle of Plants," treated the subject in an interesting manner, and illustrated it by referring to many instances where plants have actually adapted their growth and habits to a great extent of country and diversity of latitude. His views are calculated to be particularly interesting in the meridian of the United States.

"Plants," observes the writer referred to, "have *directly* no locomotive powers, but *indirectly*, they have, in a great degree, the faculty of changing their places, and consequently, their climate. The embryo germ, wrapped in a kernel, or seed, is virtually a plant, ready to germinate when thrown upon its parent earth, and affected with heat and moisture. It is in a most portable shape, and can be transplanted with ease to an unlimited distance. Nature, in many instances, superadds to seeds, wings, down, feathers, and chaff, by which they become buoyant, and are carried by the winds of heaven, by the storms that sweep the forest, and by the streams and currents of rivers, and the ocean, to an immense distance, and through many degrees of latitude! They become finally deposited in a genial soil, and at once remove, or through a succession, they occupy extensive regions. Nature manifests her great care of the embryo, by coating some of her seeds with shells, which protect them from the attacks of insects, and the action of the elements; others have bitter, narcotic, or poisonous qualities, which forbid animals eating them; and many of them are filled with oily, or resinous matter, which resists, for ages, and even centuries, the action of the elements, unless acted upon by the proper degree of heat and moisture. By such qualities they endure, and await a suitable time and conveyance to their destined place, in order to extend and vary their families.

Birds also convey the seeds of plants in their crops, over a wide extent, before they become triturated and digested; and when these winged carriers die or decay, from accident or age, the seeds are deposited, and take root in some distant land. Animals also convey them in their stomachs to a considerable distance, and pass them uninjured by the powers of digestion.

Man, more provident than all, to whom plants are necessary, whose support, whose comforts, and whose pleasure connect him with them, carries their choice seeds, slips, and scions, far and wide. His interests foster their growth, his attentions enrich their products, and his skill and science preserve their existence, and adapt them to their new condition. In an unproved community, man's wants multiply; he has occasion for the more varied and rich fruits; more abundant and luxurious clothing, and furniture of vegetable growth; odours to regale his senses, vegetable flavours to pamper his appetites, and all the medicinal plants to heal his various diseases, and invigorate his shattered constitution. He attaches himself to agriculture and horticulture: plants become his companions; he carries a creative resource into those departments, and by his attentions, forms new varieties and excellencies, unknown to the wild state of vegetable existence. Such are the means nature has provided for the propagation and extension of plants; such are the indirect locomotive powers they possess. We must no longer, therefore, consider vegetables such inert and sluggish beings.

Human care, and the providences of nature, have given to many plants a great extent of climate and latitude, an enlarged growth, and an increased and improved product. Let us bring together such instances as are within the knowledge of all, and which ought to stimulate our cultivators to greater efforts.

The valley of the Euphrates was doubtless, the native region of all those fine and delicious fruits which enrich our orchards, and enter so largely into the luxury of living. We thence derived all the succulent and nutritious vegetables that go so far to support life; and even the farinaceous grains appertain to the same region. The cereal productions began in that same valley to be the staff of life.

Our corn, our fruit, our vegetables, our roots, and oil, have all travelled with man from Mesopotamia up to latitude 60 degrees, and even further, in favourable situations. The cares of man have made up for the want of climate, and his cultivation atoned for this alienation from their native spot. The Scandinavians of Europe, the Canadians of North America, and the Samoides of Asia, are now enjoying plants which care and cultivation have naturalized in their bleak climes. Melons and peaches, with many of the more tender plants and fruits, once almost tropical, have reached the 45th degree of latitude in perfection, and are found even in 50 degrees. Rice has travelled from the tropics to 36 degrees, and that of North Carolina now promises to be better than that of more southern countries. The grape has reached 50 degrees, and produces good wine and fruit in Hungary and Germany. The orange, lemon, and sugar-cane, strictly tropical, grow well in Florida, and up to 31½ degrees, in Louisiana, and the fruit of the former is much larger and better than under the equator.

Animal plants grown for roots and vegetables, and grain, go still farther north in proportion, than the trees and shrubs, because their whole growth is matured in one summer; and we know that the developement of vegetation is much quicker when spring does open, in countries far to the north, than in the tropics. In Lapland, and on Hudson's Bay, the full leaf is unfolded in one or two weeks, when spring begins, although it requires six or eight weeks in the south. Nature makes up in despatch for the want of length in her seasons, and this enables us to cultivate the annual plants very far to the north, in full perfection. The bean, pumpkins, potatoes, peas, cabbages, lettuce, celery, beets, turnips, and thousands of others, seem to disregard climate, and grow in any region or latitude where man plants and cherishes them.

The fig is becoming common in France; the banana, pine apple, and many other plants, have crossed the line of the tropics, and thousands of the plants, valuable for food, clothing, and medicine, and such as are cultivated for their beauty, fragrance, or timber, are extending their climates, and promise much comfort and resources to man. Plants lately introduced, whose cultivation has not run through many ages or years, have acquired but little latitude in their growth, and show but little capacity to bear various climates, because time has not yet habituated them to such changes, and human cares have not imparted to them new habits and new powers.

Nothing can be effected by suddenness in *acclimating* plants; too quick a transition would shock them; it must be a very gradual process, embracing many years, and many removals. The complete success that has attended the plants first named, the earliest companions of man, proves this. In the more recent plants, success is exactly in proportion to the length of time that a plant has been in a train of experimental culture.

The most striking method of testing the effect of climate on plants, is to carry suddenly back to the south, such as have been extended far, and become habituated to a northern climate. Such plants have so much vigour, and the habit of a quick and rapid growth so firmly fixed on them, by a long residence in the north, that when suddenly taken to the south, although the season be long and ample, they continue from habit, to grow and mature quick, and obtain the name of rare-ripe; because they do not take half of the time to mature, that those of the same family require, which have never been so changed. Gardeners give us early corn, peas, fruit, and turnips, by getting seed from places far to the north; and cotton growers renew the vigour of the plant by getting the most northern seed. This practice is common in the case of most plants, and is founded on the supposition that plants do, and can acquire habits.

The fact supported in the first number of the American Journal of Geology and Natural Science "that plants are most productive near the northern limit in which they will grow,"—that they become more seed or fruit, and have more vigor of constitution, offers much encouragement to agriculturists. This proves that it is not a meager, stinted existence, devoid of profit or productiveness, that we give to plants, by pushing their culture far north, but a strong and healthful growth, one that repays the labour and attention, by a greater product than belongs to more southern situations.

Every view that we can take of this interesting subject, every fact within our knowledge, whether drawn from the actual state of cultivation, or from physiological investigations into the habits, nature and construction of plants, goes to show that plants do become acclimated, both in the natural and artificial way, to a great extent. Enough has been witnessed to prove that plants have a pliable conformation, that does accommodate itself to circumstances, and have capacities more extensive than are generally ascribed to them; enough has been realized to encourage further efforts, and to give us hopes of much future benefit.

ADVICE TO FARMERS' DAUGHTERS.

A *female* correspondent of the *Tennessee Agriculturist*, last year wrote several communications under the signature of Lucy, containing much wholesome advice to farmers' wives and daughters, and we find she has again resumed her labors in an address to Farmers' Daughters. Her communications of last year were greatly admired and extensively copied, and we think our own readers will conclude after reading the subjoined, which is the first of her series, that it is destined to find as much favor with the intelligent as did her former efforts.—*American Farmer.*

TO FARMERS' DAUGHTERS.

The desire of information is necessary in order to the acquisition of it, and as books are one of the principal sources from which we derive our most valuable knowledge, I will talk to you about them, and a few other matters this evening. A taste for reading should be cultivated by all young persons. I consider a fondness for useful books one of the greatest blessings. Without this, there are so many hours that pass away heavily and idly, and for which no good account can be rendered in time or eternity. In bad weather, I have seen young ladies looking about, not knowing what to do with themselves, because they could not go out to visit or ride. —The case is so much altered, when you can sit down with pleasure to a good book, and regardless whether it rain, or the sun shine, read on, determining to improve the dark hours of life by laying up those stores of knowledge so much needed in after time. You derive pleasure not only from the reflection, I have improved the time. I have learned something I did not know before. It is of great importance that you have the right kind of books. Many young persons read, and it would be better for them if they were ignorant of the alphabet. They read for present excitement, and of course, novels are the only books for which they have an appetite. It is my opinion you had better not read at all, than acquire a passion for them, for it generally amounts to a passion. Girls who read many novels lose their common sense and healthy action of mind. They dream over the love-sick eloquence of the heroines, the beauty, bravery, and nobleness of the heroes; all the great events that are related are pondered over, until the common affairs and duties of every day existence become tasteless and disgusting, and they are

aside whenever it is possible, for the favorite novels. This is not always the worst evil resulting from improper reading. The splendid qualities of the heroes are transferred to some living character; it is imagined he has the deep dark and lustrous eye, the wreathing hair, the marble brow, the noble and high born grace of a Thaddeus, a Sir William Wallace, or some other imaginary favorite; and it is all the same whether he be a gambler, a play actor, or a horse thief, she believes it not: reflection is at an end, and the novelist wakes from her dream, to bear her bitter lot in the stern realities of life, without preparation of mind or heart. On the contrary, useful books impart strength and vigor to the mind, discipline it to bear the misfortunes of life, render it more capable of judging the true character of others, and of acting with discretion in all trying situations. Read for instance the life of a Franklin, a Washington, a Miss Hannah More, and you find in every page something to imitate, something to better the heart and life. In Miss M. you see a woman of true feminine grace and dignity, one who learned and taught the art of "growing old gracefully.":

If you will read novels, read but few, and those selected by some one upon whose judgment you can depend. Miss Edgeworth, if I might hazard an opinion, is one of the very few whose works may be read with safety and even profit. She has sense, practical every day common sense, that is good for use. She talks about industry, economy, correct principles and actions. She possesses at the same time delicacy and propriety in all things. Better for you to read the pure morality that lives in her writings, than to pore over the passionate effusions of the corrupt Bulwer. He it is, who now writes, and forms the taste of millions, and when he talks of love, how fervently do his tones of tenderness gush forth, as if *he* had a heart to appreciate the holier sentiments of human nature. But while he thus writes, he can treat even with personal violence, the beautiful wife who loved and trusted,—who gave to him the first pure affection of her noble heart; he can separate her from her children, drive her from his home to take refuge with strangers, and even follow her with insult and persecution. But I am digressing. There is another article I will mention. Read but few books, and let your knowledge be accurate. Understand perfectly what you read, it is better to gain two ideas you can appropriate to your own use, than to have a confused idea of fifty things.—One of our great men attributes all the distinction he has gained, to the careful perusal of one book. The authors of purest style and most correct sentiments should be studied; while those of an opposite character ought ever to be carefully avoided. You know a woman is generally thought intelligent, if she can talk about a good number of authors she has read do not think it is always conclusive evidence. It is oftener a proof her knowledge is superficial.

There are but few of our sex who devote much time to study, in our part of the country at least, and you frequently find that she who has most names at the end of her tongue, has fewest ideas in her head. Some minds of uncommon strength may be improved by the study of many books; where however it is advantageous to one, it is a disadvantage to many others. A feeling of vanity is produced, and the intellect confused, rather than enlightened, of course I speak of *young* persons. Do not look into books in order to make a show; to know their title and a few sentences from them. I have seen young persons who would look for an hour or two into Paley, and then talk more of philosophy than others who had studied him thoroughly, and had his ideas on all matters

Some one writing of this effort at display, says, "you can always see the bottom of the pebbly brook, but the ocean unveils not its richly gemmed carpeting." Miss Beecher, speaking of a young lady who had but *few* books, and had studied them well, mentions that "a person of information in conversing with her would always feel a constant wondering pleasure, to find she had so much more to say of this and that and the other thing than he had expected."

This cannot be said of mere smatterers you know. There are many of you who devour with eagerness, all the fashionable journals of love tales. Now, love is an excellent thing in its place, but reading about it all the time is not much benefit. I cannot think you derive much improvement from such studies. They produce a pleasing excitement for the time, but then that time is to all intents and purposes *wasted*. Take care of the minutes, and the hours and days will take care of themselves.

There are papers in our country you may read, and improve from the perusal, and they are those devoted to Agriculture. You may say what have I to do with Agriculture? You have much or will have, in the course of your future life. They will teach you how to cultivate the gardens you intend to have, when you go house keeping; how to manage household affairs with the most ease and to the best advantage, how to do a hundred and fifty other things. A number of you will marry young doctors, lawyers, preachers, merchants, with soft white hands, who know nothing beyond their professions, and if you can learn something beforehand, and teach them common sense about going to work, and earning their living by the sweat of their brow, as the Lord intended them to do, it will add more to your own comfort than you have any idea of. After the first romance of love is over, you will want all those things that grow in the earth, and out of the earth, and you cannot gain them without a good degree of knowledge and a great deal of hard work. My maxim is, learn every thing you can, from darning socks, to milking cows. Put it all down in your mind, or in a book. You will need it some time or other.

To mention these Agricultural papers again, I would not be deprived of the information I gain from them, for all the love tales in the country. *The Boston Cultivator*, for instance, contains much that is pleasing and useful. There is always something addressed to the ladies, that makes it a welcome guest. The *Yankee Farmer*, thinks it one of the most proper things in life, that girls learn about the "soft soap of domestic economy," while young. *The American Agriculturist* has a little of most all matters that are good *The American Farmer* and *The Cultivator* will teach not only you, but your fathers, a good deal they do not know. There is a host of other Farmers and Planters, and Ploughboys and Cultivators, that I have not now time to write about, but they are all valuable for their information on business we have to attend to every day, month and year. I have but one objection to some of them, and it is, that they do not say *quite* enough for the benefit of the Ladies. One reason may be given for this, the ladies say very little to them. I have written till I am tired, I expect you will be tired reading, and will tax you no longer.

HINTS TO YOUNG MEN.

Be Industrious. We do not mean here the industry of the hands alone; but that perseverance in whatever we undertake, that is the sure precursor of ultimate success. Never allow the mind or the body to stagnate; activity is necessary to the health of both. Always have some worthy end in view, in whatever you undertake; remembering that to fail with good intentions, is more honourable than success in an evil cause.

Cultivate your Mind. It is of more importance to the young, that their reading should be select, rather than extensive. One volume well understood, on any important topic, is better than half a dozen merely skimmed. There are many subjects of general utility, with which every one should have a partial knowledge at least; but it is one of the great faults of modern education to spend too much time on studies that rather burden and clog the mind, than strengthen and inform it for life's practical duties. Reading, or studying without some definite aim, is likely to lead to few useful results. How many men there are who have spent a large part of their lives over books, of whom it may be said, "they remember a mass of things, but nothing distinctly." It is possible to cram the mind with masses of indigestible materials, destructive alike to a healthy and a vigorous action of the intellectual powers.

Be Economical. No matter if your parents are worth millions, it is not the less proper that you should understand the value of money, and the honest, honourable means of acquiring it. What multitudes of young men, particularly in our cities, make fatal shipwreck of reputation, health, and eventually of property, by a neglect of this simple maxim. They are aware that their fathers obtained their wealth by habits of industry, but they are ashamed of the very name. They forget that wealth in this country passes rapidly from one to another, and that he who is rich to-day may be poor to-morrow; or that he who relies on wealth amassed by his father, may end his days in a poor-house. It is for the young here to say whether by industry and economy he will secure competence and respectability, or by extravagance and idleness become a worthless beggar and sponging outcast.

Be Just. In the course of life a man frequently finds his interests or his opinions crossed and thwarted by those from whom he had a right to expect better things, and the young are apt to feel such matters very sensibly. Be not rash in your condemnation. Look at their conduct carefully, and be just to the motives that prompt it. You may find that were you placed in their position, the course you now condemn would be the one proper for you, and the one you would be under obligation to pursue. A little cool consideration would avoid much censoriousness.

Shun avarice. One of the most disagreeable characters on earth, is that of the grasping, avaricious, penurious man. Generosity is perfectly compatible with economy; and the means which enable some of our most noble hearted, generous men, to do so much to benefit and bless mankind, are obtained, not by close-fisted penuriousness, but by economy. The distance is not greater between the zenith and the nadir, than between the covetous and the economical man: the first banishes every just and honorable feeling from the heart, the other fosters and ministers to them all.

Determine to be useful. No matter what may be your condition in life, you have an influence, and that influence should always be exerted in a proper way. The young have no right to fold up their arms, bury their talent, and become the drones of the social hive. Aim high, but with prudence; act with determination and perseverance; let no obstacle drive you from the path of honor and duty, and you may be sure of eventual success. Riches are not within the reach of all: competence is; and the latter condition is preferable in every respect to the first. Remember the Deity helps those who help themselves, and that utility is the great end of human exertion. —*Albany Cultivator.*

CURING AND COOKING HAMS.

The following is Miss Leslie's receipt for curing and cooking hams. The ingredients for curing is the quantity to be used on four hams:

Mix together one pound of fine salt, two pounds of good brown sugar, and two ounces of saltpetre pounded fine; then mix together a quarter of an ounce of cloves, a quarter of an ounce of mace, and half an ounce of nutmegs, all powdered. Add the spice to the salt, &c., mixing them thoroughly. Then put them into a pot over a slow fire, and stir them till they become very dry and hot, which should be in about two minutes. Be careful not to have the fire too quick, or to keep them too long over it, lest the sugar should melt. Afterwards divide this mixture into four equal parts, and rub one of the portions, a little warm, on each side of the four hams, which should previously be wiped quite dry with a clean cloth. Next lay the hams, with the rind down, in a clean salting tub, and keep them thus six or seven days. At the end of that time, take the hams out of the tub; and, to the pickle that remains in it, add two gallons of water, stirring it well. Then pour the liquid into a large pot. Next, stir in two quarts of molasses, and two ounces more of saltpetre; put the pot over the fire, and boil and skim the liquid till it is perfectly clear. Afterwards, let it stand to get quite cold. Return your hams to the salting tub, (first making it very clean,) pour the pickle over them, and let them lie in it three or four weeks. Then smoke them eight days —with the shank or bone hanging downwards. Corn cobs make a good fire for smoking hams.

Hams should, previous to boiling, be soaked to make them tender. A green or new ham may be put in soak early in the evening, and the water changed about ten or eleven o'clock. One night's soaking will be enough for it An older ham should soak twenty-four hours; and one two years old will require soaking for two days and nights; always changing the water at intervals. A ham weighing fifteen or twenty pounds, should be boiled six or seven hours, simmering slowly the first hour. Take care to skim the pot well.

When the ham is done, strip off the skin, which should be saved to skewer on again when the ham is put away cold. This will prevent the cold ham from becoming dry and hard.

A cold ham that has not been cut, can be greatly improved by glazing it as follows:—Have ready a sufficiency of beaten yelk of egg —and dipping in a brush or a pen-feather, go all over the ham with it. Then cover it with bread-crumbs, grated as finely as possible—and afterwards go over it with cream. This glazing is delicious.

Cold boiled ham is better than raw for boiling or frying. If raw ham is to be broiled or fried, scald it several times to take out the salt which otherwise will ooze forth in cooking, and stand upon the surface of the slices, tasting and looking unpleasantly. When scalded, it should lie in hot water half an hour.

There is, however, no process of curing that will make good hams unless the pork is of the best quality.

TORONTO MARKETS.

January 20, 1844.

		s.	d.		s.	d.
Flour	per bbl. 196 lb...	17	6	a	22	6
Wheat	per bush. 60 lb...	3	3	a	4	2
Barley	per bush. 48 lb...	1	9	a	2	3
Rye	per bush. 56 lb ..	2	3	a	3	6
Oats	per bush. 34 lb ..	1	0	a	1	2
Oatmeal ..	per bbl. 196 lb ..	15	0	a	18	9
Peas	per bush 60 lb...	1	6	a	2	0
Timothy ..	per bush. 60 lb ..	3	0	a	3	9
Potatoes ..	per bushel	1	3	a	1	6
Hay	per ton	40	0	a	42	0
Straw	per ton	20	0	a	25	0
Hides	per 100 lb.	20	0	a	0	0
Salt	per barrel	12	6	a	15	0
Beef	per 100 lbs.	15	0	a	16	3
Beef	per lb.	0	2	a	0	4
Mutton....	per lb.	0	2	a	0	4
Veal	per lb.	0	2	a	0	4
Pork	per 100 lbs.....	15	0	a	22	6
Pork	per lb.	0	2	a	0	4
Turkeys ..	each.....	2	0	a	2	6
Geese	each.....	1	3	a	2	0
Ducks	per couple	1	3	a	2	0
Fowls	per couple	1	0	a	1	3
Chickens ..	per couple	0	10	a	1	3
Butter	per lb	0	6	a	0	8
Eggs	per dezen	0	9	a	0	10

HOME DISTRICT AGRICULTURAL SOCIETY.

UNDER THE PATRONAGE OF HIS EXCELLENCY
THE GOVERNOR-GENERAL.

PUBLIC NOTICE is hereby given, that the ANNUAL MEETING of this Society will take place at the Court House, in the City of *Toronto, upon Wednesday, the Fourteenth day of* February next, at Twelve o'clock noon, for the purpose of appointing Officers for the ensuing year, and for the discussion of certain matters of *deep importance* to the general interests of the Society.

The Officers of the Branch and Township Societies, and the friends of Agriculture are also particularly requested to attend.

By *Order*,
GEORGE D. WELLS,
Sec'y H. D. A. S.

Toronto, January 15, 1844.

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