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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. 2.

TORONTO, NOVEMBER, 1843.

NO. 11.



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, NOVEMBER, 1843.

TO THE PATRONS OF THE CULTIVATOR.

The publisher of *The Cultivator* informs the friends and patrons of that journal, that it is his intention to continue the work, and publish it punctually on the first of each month. The support which has been received for the current vol. shows an increase, over the last year's circulation, of about one-third. He therefore considers that he would be highly culpable in relinquishing the publication, although it has not yet reached its paying point. Those who have thus far favoured us with their support, must have observed that the management of our journal has been a series of experiments. We have had a combination of difficulties to contend with, which have been, by perseverance, surmounted; and we are now happy to add that our pathway appears comparatively unobstructed.

The terms to agents and clubs have been so far reduced that, without scruples of conscience, we are prepared to declare that a cheaper pub-

lication of the kind cannot be had in America, when the item of postage is taken into the account.

At the exceeding low rate that the paper is published, forbids the continuance of crediting it to agents and clubs. Our friends will therefore not be surprised when we announce to them that in future no orders will receive attention, unless the money be sent invariably in advance.

We have reason to believe that the Home District alone will subscribe for as many copies as will cover the actual publishing expenses of the forthcoming volume. With this encouragement before us, we shall shortly be warranted in employing a publisher, and wood engraver, which will add to the character of our work, and enable us to devote a few days in each month to visit the best farmers in the surrounding districts. The only thing we ask in support. Give us that, and we will enlarge, embellish, and improve our sheet, to an extent both creditable to its conductor and supporters.

The December number will be issued by the fifth of that month; and No. 1, volume 3, will be before the public by the 25th of December.

TO TOWNSHIP COLLECTORS.

A Home District Farmer, who is acting in the capacity of Township Collector, has engaged his services for *The Cultivator* as well, and allows each subscriber to have the advantage of the commission we allow agents. From the success which he has met with, he recommends us to invite each Township Collector

throughout the Province to aid in extending the circulation of our journal.

The Cultivator is sent to upwards of 400 Post Offices, and our readers in each township will confer on us a great favour by introducing our journal to the several collectors in their circle of acquaintance. Any required number of gratis specimen numbers will be sent to any responsible person who will endeavour to procure a list of subscribers.

All Post Masters and Officers of Agricultural Societies, are considered authorised Agents.

THE AGRICULTURAL ALMANACK.—A few score of this valuable work has been received at this office, and will be sold at 74d each. Purchase it, and it will recommend itself.

BACK NUMBERS.—Our Agents and friends will oblige us by aiding us in disposing of the surplus edition of the current volume, which we have on hand.

CONSUMPTION OF GREAT BRITAIN AND IRELAND.—From a table which we find in Blackwood, it appears that the annual consumption of the people of Great Britain for food, clothing, &c., is as follows:—

Agricultural produce, for food,	£295,179,000
Manufactures, - - - - -	262,085,000
Imports, (raw produce), - -	55,000,000

£612,264,000

From the same source, we learn that the exports from that nation to the whole world, for 1840, were as follows:—

Total amount, - - - - -	£51,406,430
To the Colonies, - - - - -	17,378,550

Actual foreign trade, - - - - - £34,027,880

AGRICULTURE — WHAT IT IS, AND WHAT IT OUGHT TO BE.

"There is no use of attempting to drive Lawyers out of the Government of the country; do what we will they will rule; it is vain to attempt to carry anything against them, and we must submit to their dictation.—*Extract from a Speech of J. P. Roblin, Esquire, on Agricultural Protection.*

We have strenuously avoided all sectional controversial questions since our connection with this journal, and are determined to adhere to the even tenor of the policy which we have thus closely confined ourselves, but we really consider that we would come short of performing a duty we owe to the Agricultural classes, if we were to allow such expressions as those quoted above go before the public without offering a few remarks in defending the yeomanry from such gross misrepresentation.

We deny that there is no use of attempting to drive the Lawyers out of the Government of the province. Before such a bold declaration as Mr. Roblin's be admitted, an attempt should be made to have the Agricultural, and other producing classes represented in the Parliament of the country. No effort has yet been made to consummate this desirable object. And we ask when can there be a more fit opportunity than the approaching winter for the adoption of vigorous measures to have those interests represented? The only thing necessary to accomplish more than even the most zealous have demanded, is, that the farmers unite in their strength and send persons from amongst them to represent them in Parliament.

Agriculture at present is even looked down upon by the very men who are bound to protect it, and we are sorry to add that in many instances the farmers themselves do not speak so highly of their profession as they otherwise would, if it were an honourable occupation in the eyes of the gentlemen who influence the movements of the Government. Indeed it is not sufficient that Agriculture should be merely represented in the Commons of the country, but we want to see at least four intelligent farmers in the Executive Council.

The cities and towns will afford a field abundantly large, for the profession of the law to be well represented, and the agricultural districts are grossly in error, if they do not at once take efficient steps to enlist in their service, men from their ranks, to represent their interests in the Second United Parliament. There are, no doubt, difficulties in the way—and the most formidable one is that we have been dupes to the designing politicians of the day. We have, in many instances, been made to believe that a species of class legislation is of more importance to the country than the adoption of broad principles based on equal justice. The course which certain legislators have lately pursued, have tended, in a great measure, to open the eyes of the electors to the hopelessness of receiving any attention from the present House. In sentiment, the present parliament are almost unanimously advocates of free trade. The very champion of the resolutions for the proposed

tariff bill, two years since, in a private interview, with a friend of ours, reprobated the principles of protection, and remarked, that he knew no just reason why his family should be taxed an extra penny per lb. for beef, to benefit the greedy farmers.

We understand, that the Gore District have already made up their minds to return two lawyers to parliament, the ensuing election. This savours, in our opinion, of the principle of taking time by the forelock. We regret that the yeomanry of this country are so inactive, in matters relating to their dearest interests. The Home District, the most populous and wealthy in the province, is now represented in parliament by five gentlemen, of the long robe, and one gentleman, office-holder. Is there any probability of a change in these matters? Certainly not, so long as there is no union among the rural population. The position matters of this sort are in at present is such, that it would be madness in the extreme to nominate an intelligent home-spun farmer, for the office of M. P. P. There is a species of jealousy existing among them, which is neither based on common sense principles nor justice, which will, so long as it exists, prevent the agricultural districts being properly represented in parliament. The scheme which we have in contemplation, and which, we trust, will be generally acted upon, will ultimately have the effect of preparing the wisest and most intellectual of the producing classes for the several offices, which the people have the power to elect, for these offices.

It may not be out of place for us to mention, that a concerted movement, on a grand scale, is necessary to bring in the forces from every point of the compass, so that the people may judge, from the ability of the parties, whether talent can be found among the agricultural classes, of the proper description, to qualify them for the highest offices within their prerogative to elect. This movement is also necessary to give a character to this country, as one possessing all the necessary natural and artificial resources, to enable the British capitalist to invest his capital and even settle among us, by which means the respectability of the community will be enhanced, and the interest of the money will remain, and be expended in the country.

The best apology we have to offer for the course we are about pursuing, is, that the great interest of the country is almost entirely neglected; and also the very dispirited manner in which all agricultural movements are conducted have influenced us to endeavour to bring into requisition every possible exertion, with a view to infuse a wholesome spirit in the mass of our countrymen. At present, every department of business is unprecedentedly depressed, no man looks on his fellow with much confidence, and a spirit of selfishness has been fostered by the narrow-minded course which both politicians and the press have pursued, which have tended in a great measure to keep the mass in ignorance; as an evidence of which, we hear expressions, almost daily, from the farmers,

from which, together with their actions, a person would be led to suppose that they were of opinion that it is derogatory to their individual interests, that their neighbours should acquire property, by honest means, in a faster ratio than themselves. Nothing could be more preposterous, than such notions as these.

We want to see the profession of Agriculture made respectable,—looked up to as the source from whence both *principal* and *interest* must be realized, and respected as it should be by all classes. To bring about this desirable state of things, a commencement must be made, and the sooner it is made the more speedily will be fully accomplished all that is necessary to make Canada what it should be—the brightest gem of the British Crown.

It is unnecessary for us to draw a vivid picture of the present state of Canadian Agriculture, suffice it to say it is not what it might be; nor will it as a profession attain to any considerable eminence, until more vigorous and united efforts be made by the most interested parties themselves.

Agricultural Societies, as they are at present constituted, will be of trifling service to the country; indeed, in many districts, they have done a vast amount of injury, by introducing stock, altogether ill suited to the wants of the country. The country would have been benefited some thousands of pounds, if the introduction of the blood horse, and the Lincolnshire breed of sheep had been discouraged by agricultural associations. We might dwell on these topics, and add to the list of the improper proceedings of these associations, which have been a source of regret to many of the wisest and most wealthy farmers in the country, who have, in consequence, withheld their countenance and support; but sufficient has been advanced to satisfy the thinking portion of the population, that other steps must be taken to advance the agricultural interests of the country; we shall now confine ourselves to a few plain observations on what we consider the most practical and at the same time the most beneficial method to advance the progress of Agricultural skill and wealth in this highly favoured portion of the British Empire; and at the same time trust that the most fastidious will give it due consideration before they denounce it as being impracticable, and unworthy of their co-operation.

AGRICULTURAL CLUBS.

The organization of one or more clubs for the discussion of agricultural topics, should take place in each populous township forthwith. The officers and members of these clubs might meet once per month, and their proceedings might, with advantage to themselves and the country, be carried into effect in the following order:—

The discussion of an agricultural topic agreed upon the previous meeting; the delivery of a short and spirited agricultural address, and afterwards volunteer remarks, reporting experiments, or the elucidation of any one fact on improved agriculture, or any other

topic worthy of being reported,—all of which might be committed to paper by the secretary, and subsequently be published for the general benefit of the country. A board of directors, consisting of the most influential and patriotic farmers in the township, should be elected, for the purpose of soliciting members to the institution, and to take such other management as the spirit of the parties composing the club would dictate. We would especially recommend that the directors of these clubs be considered proper persons to give sound and wholesome advice to emigrants when they arrive among us. If in each settlement or concession of a populous township, a person were appointed who would interest himself in the welfare of the newly arrived emigrant, and give him wholesome advice or information regarding the country, such proceedings would be of vast importance to the country, and would show most conclusively that the Canadians were a people worthy of the notice of the influential classes of the mother country. If only twenty men can be found in each township who have the great interests of the country at heart, who would co-operate in a general movement similar to the one we propose, we confidently predict that very shortly a new and healthy state of things would be the order of the day, and in less than two years the tide of emigration would flow to this country in a manner quite unprecedented in the history of the British colonies. It is probably a fortunate circumstance for the British North American Provinces, that the Australian scheme of emigration has partially failed, and there is every probability that it will be wholly relinquished very shortly. Mr. Buller's scheme is an evidence that an unusual interest is evinced in Britain on all matters relating to the British North American Provinces. Before much can be accomplished, the colonists themselves must take active measures to provide the necessary accommodation and information for intending emigrants. These directors to the township clubs might give much practical aid to the Government Emigrant Agents, and information through them and the clubs might be published, which would have a wonderful effect in developing the resources which each township possesses.

DISTRICT BOARDS.

District Boards of Agriculture might be formed as soon as the township clubs could be brought into active operation. A representative from each club would form the District Board, and as a matter of course, the most intelligent would be selected, as the duties would be of an exalted and very important nature, viz.: the development of the agricultural resources of the country—the general diffusion of useful knowledge, and the complete management of the funds granted by Government for the laudable purpose of encouraging agricultural improvement.

These District Boards might meet once per quarter, and prepare the information collected by the local clubs for publication, and publish

such other useful information as the intelligence of the Board would afford. Instead of a number of badly managed agricultural exhibitions in each district, only one should be held, which would have the effect of bringing the best stock from every township in the District to one point, and instead of a few paltry premiums being awarded, as now is the case, at least five hundred pounds might be distributed in agricultural premiums in each district, each and every year. It is at present considered a great achievement for a populous district to raise by *hook and crook*, the small sum of one hundred pounds, through the members of agricultural societies; and if that sum be raised, it is thought a matter unworthy of further exertion to increase it, as it will fully entitle the district to two hundred pounds from the Government. We look upon this, and most of the proceedings of agricultural societies, as a matter of very little moment either to themselves or the country, and have therefore but little confidence in recommending any plan for their improvement, unless the old system be amended, in a manner calculated to benefit the parties engaged, and the country in general. What the farmers in this new country want to enable them to become respectable, wealthy, and wise, is useful ideas on practical farming. We have participated in some scores of agricultural exhibitions in this country, and we feel warranted in asserting that at no exhibition that we have had the honour of attending, have been any suggestions made, experiments reported, speeches delivered, or, in fact, any thing else brought on the carpet, calculated to expand men's minds, or give them a single idea whereby they might "cause too blades of grass to grow, where formerly only grew one." We are not a friend of taxation, without those taxes be judiciously expended. At present, our tea, sugar, coffee, and other necessary importations are taxed, a portion of which has very properly been set apart for the laudable purpose of encouraging improvements in agriculture. This money to the tune of thousands per year, have been in too many instances very badly expended. We know of some districts in which the secretary of the Society, receives a very handsome salary and in others, where the printers' bills have equalled the enormous sums of £40 a year—and in others, where the annual dinners were paid from the funds of the Society—and others, when the officers have received fully two-thirds of the amount awarded!! We might fill our sheet with this category of mismanagement, but probably what has been advanced will suffice for the present.

We want the agricultural profession to take a stand worthy of its importance. We mean to say that we shall not let the subject rest until we see our Legislative Assemblies composed of men who have borne the heat and burthen of the day at the honest and important occupation of holding the plough. Native talent, of a very high order, abounds in this country. We know of young men, who are now in comparative obscurity, whose native talents would do credit to any country were

they brought into active and useful exercise. These young men will never presume to step further on the path of intellectual advancement than their forefathers trod, nor will they have the slightest idea of what their intellectual capacities are capable of performing, so long as there are no local institutions in being that are calculated to bring to light the hidden treasures of their minds. We frequently hear some half dozen great men highly spoken of, as being ornaments of their country, who have rose to opulence and public favour, by a combination of favourable circumstances, both creditable to themselves and the parties who advanced them. We have taken some pains to inquire into the manner and character of the steps which these comparatively self-made great men practised, and we find that, in all cases, they first learned the *alphabet* the same as other pupils, and subsequently rose step by step, until they at last achieved the most honourable posts that the people or the crown had at their disposal. In the same manner must the farmers' sons achieve the laurels laid in store for them. They must delight in the science and practice of their noble calling. They must show themselves worthy of the respectful notice of other classes, and show those classes by their conduct that it is their interest to respect them. The farmers of this country are lords of the land they cultivate. Each farmer should look upon himself as a *governor*, and his parliamentary representatives as his servants. How is all this to be accomplished? Can it be achieved by sending gentlemen of the long robe to represent them in Parliament? Certainly not. Or can it be brought about by selecting block-heads from among themselves to represent them? Every man of common sense understanding will answer, No. Well, how shall this gigantic movement be brought into exercise, so that Canada will have all the advantages which an honest and *practically working* legislature can afford? We would answer, simply by the means pointed out in the foregoing observations. We must begin at the foot of the ladder, by forming local clubs of agriculture, the active members of these clubs will feel delighted in imparting information to their audience: the most active member will unquestionably be selected to represent the club in the District Board. A higher order of intelligence, and duties will there be presented to his view. A certain number of the best qualified members of the Board will be selected to represent the District in a Provincial Board of Agriculture, as soon as the Districts have consented to engage in the movement. This brings us to another topic, which has been frequently brought before the notice of our readers, and upon which, we are sorry to add, no action has yet been taken.

A PROVINCIAL BOARD OF AGRICULTURE

might be formed, by one, two, or more representatives from the District Boards. The duties devolving on this Board would be of the highest order, so far as agriculture and the general prosperity of the country is concerned.

These duties would be the entire management of a Journal of Canadian Agriculture which would contain the essence of the information collected through the Township Clubs and District Boards of Agriculture, and form the principal matter, contained in the Journal, and this journal would be sent to each member of the local clubs, in which they would find a volume of invaluable information rarely met with in any country, and at a price unprecedently low. In this journal they would find, the opinions and experience of the wisest and most experienced in the land, and the machinery would be so complete, that if any one farmer in the country were wiser than his neighbour, the nature of his discoveries, or the superiority of his system of management would go before the public in a plain common sense style, through the proposed medium, so that each farmer in the province could avail himself of the combined experience of his class. The plan which we would propose that the clubs should receive the journal is this,—supposing each member of the local clubs, would pay into the hands of the treasurer of the club, the annual sum of five shillings, one-half of this small sum would entitle him to a copy of a journal twice the size of our own, and the other half would entitle him to show improved stock, farming implements, seeds, roots, or any other article that the District Board would award prizes for. If this patriotic principle could take the place of the old system, it would have a most powerful effect of dissipating every thing selfish and narrow-minded, as the subscribers to the club would be morally certain of obtaining twenty times the worth of his dollar, through the information contained in the columns of the journal, and if he were so unfortunate as never to draw a prize, he would have no just grounds of complaint, as he would have more than value received for his dollar. This brings us to the last topic under present consideration, viz:—

PROVINCIAL SHOW.

The Provincial Agricultural Board would have a considerable portion of the management of the Provincial Shows, which would be held each and every year in such district and location as their wisdom would dictate. It would very probably be considered the wisest course to change the location for holding the Show, each and every year, until the line of Districts from one end of the Provinces to the other, were visited by these annual exhibitions. It might be thought proper to invest the whole funds of the particular district Board, in which district, the General Show was held, and a certain stipulated amount, say fifty pounds, from each district Board, would entitle any member of the local Clubs of the district, in which the General Show was held, or the members of any other district Club, by producing a certificate from the Treasurer of the Club, that his annual subscription had been properly and regularly paid. The reader will see, that if the proposed plan were adopted, that a voluntary tax would be raised from each individual for a general purpose, viz: the

advancement of our country's welfare. The cultivation of hemp and flax, the better management of land and stock, and the proper encouragement of a general system of emigration, would all receive an amount of attention by the proposed associations and their general medium of communication, which would exceed in their results an amount of success, unprecedented in the history of the country.

We recommend this hastily written and unmethodically arranged communication to the serious attention of every lover of his country—and if the plan be reasonable, we hope immediate action will be taken to form township Clubs throughout the entire Province.

We need scarcely add, that we are bent on organizing Clubs in the several townships of the Home District, on the principles embraced in this article. We know of one township in which we think one hundred pounds may be raised notwithstanding the depression of the times.

ON CLEARING LAND.

A farmer of the Western District has made a few enquiries, relative to clearing land, which we feel great pleasure in answering.

The ashes, if carefully saved, and the first crop of wheat, will, on an average of cases, pay for chopping, clearing, and fencing land.

One hundred bushels of hard wood house ashes, or one hundred and fifty bushels of ashes gathered from the newly-cleared land, will make 112 lbs. of potash.

The expense of making potash will depend entirely upon the distance the ashes has to be drawn, or the price they cost per bushel at the factory, the amount of business done, and the skill engaged in their manufacturing.

The kiln spoken of could not be profitably formed, nor do we think that a greater quantity of the potash contained in the wood would be saved by such a process.

Clover seed could not be profitably exported at present prices, but it might be profitably grown for home consumption. Not one acre in twenty is sown that should be. From three to four bushels of clover seed per acre is reckoned a full crop. The greatest crop, to our knowledge, grown in Canada equalled 60 bushels from 10 acres. This was grown in the township of Whitechurch, in the Home District. The price of seed that season was £2 10s. per bushel.

Timothy seed may be profitably exported to the United States. It never brings less than seven and sixpence per bushel in New-York. From twenty to twenty-five bushels may be grown upon an acre, but it should be borne in mind that it is a very exhausting crop on the land, and therefore requires a judicious rotation. We would recommend the growth of Timothy on such lands as abound with too much humus or vegetable mould for wheat growing.

We have thus cursorily answered the enquiries of our Correspondent, and we would beg to remind him of one fact for his consid-

eration before he engages in the potash business, the present prices of ashes will not remunerate, unless the manufacturer be properly initiated in the business, and a great proportion of the work be executed by the manufacturer. The inspectors of ashes are very particular, and frequently heavy losses are sustained, merely from a defective colour of the ashes. On the whole, it is a business that we cannot recommend to the newly-arrived settlers.

In clearing land there is always an abundance of ashes on the land for the first crop, which is made from the burning of the brush. It is advisable to gather the whole of the ashes made from the burning of the log heaps. These ashes should be covered under, in a house built with logs, and may be applied with great advantage to every subsequent crop after the first. We are confident that every bushel of ashes thus applied to crops of Indian corn, turnips, spring and winter wheat, flax, Timothy and clover meadows, would be worth, to a provident farmer, at least six-pence per bushel. Let those who doubt our word try the experiment.

The cost of chopping, clearing, and fencing an acre of land, on an average of cases, equals about £3 10s. The first crop, if the land be high and dry, will average 20 bushels per acre, and, in many instances, will even exceed 30 bushels. Indeed we have known three cases in which three ten acre fields yielded 500 bushels each, being the first crop raised upon the land. These are, of course, extraordinary cases.

Many modes of clearing land have been practiced, some of which we will mention. The most common plan is to cut the trees in such a manner that they will all fall in one line of direction, and subsequently the brush are piled, and the trunks of the trees are cut asunder in lengths of about 20 feet. To chop an acre of heavy timbered land, in this style, would require an expert chopper at least eight days.

A better mode than this, is practiced by the experienced backwoodsman which consists merely in felling the trees in such a manner that they require much less labour in chopping and logging. The land intended to be chopped, is marked out into oblong squares or plots, of about twelve perches wide, and the entire length of the lot purposed to be chopped. The trees in the centre of the plots are felled in a line of direction with the centre, and those on each side are felled towards the centre, and by this means, the tops are all thrown together which burn much of the wood without any further trouble. The process just alluded to is called *slashing* or *slash piling*, which has received its name from the circumstance that a great number of trees are chopped only about two-thirds off, all of which are made to fall at once,—an accustomed chopper will cause a dozen of the largest sized trees to fall as close together as possible.

A plan has been put into practice in some of the most southern townships of the London

District, which consists of a double process of clearing, viz.—the under brush, smallest sized trees and rail timber is chopped and cleared off the land, the remainder is girdled and allowed to remain until the first crops of wheat is harvested, and then felled and burnt with the stubble. The admirers of this plan argue that the ashes are better distributed over the ground—and that the second dressing of ashes, cause a more luxuriant growth of wheat than the first, and is also less subject to disease. They also maintain that a saving of about three dollars per acre, in clearing is made by the adoption of this novel process. We have not the slightest doubt, but that the plan has important advantages over the common practice.

The cheapest and most feasible plan of clearing land, is the chopping down the small, and girdling the large trees, and the following season the whole may be cleared with very trifling expense. The timber will be all dead, and as dry as powder, the fibrous roots, the leaves, and trash all decayed, or undergoing decomposition; and the land will very often produce a remarkable large crop the first year. When land is chopped and cleared without giving time for the decomposition of the undecayed leaves which cover the ground to a great thickness, the burning of the brush and underwood, robs the land of much of the vegetable mould that is necessary to give stamina to the crop.

We are of opinion that heavy timbered hard wood land may be cleared for one-half the usual price, by adopting the plan of felling the underwood, when the trees are in full leaf, and completely girdling the large trees, except the rail timber. The following summer the whole may be chopped and burnt, with very little cost, and instead of logging, and burning, after the common method, a system of *niggering* may be substituted, which, if practised in suitable weather, will cost less than half the labour of the plan in general use.

TRANSACTIONS OF THE HIGHLAND AGRICULTURAL SOC'Y OF SCOTLAND. EXPERIMENT IN DEEP PLOUGHING.

The experiment was made upon a small field, which is sixty-five feet above the level of the sea. The soil is sandy, resting upon a sub-soil of sand and gravel of great depth, and so thoroughly drained by the declivity of the surrounding lands, that want of moisture is its natural defect. There is but little difference between the soil and the stratum on which it rests, beyond what culture and manure have made; but, from sinking of gravel, treading of horses, and pressure of the plough, year after year, and age after age, the sub-soil had become crusted, hard, and beaten as a road. In short, from shallow ploughing, there was but little depth of cultivated earth, and, as on such soils in dry seasons, the crop was stunted and scanty.

With a view to render this field fruitful in any season, it was sub-soiled with the Deans-ton plough, eighteen inches deep, and sown with wheat for crop 1837. The great vigour and luxuriance of the crop attracted general notice; and it must have yielded an extraordinary increase, if it had not been lodged by wind and rain shortly after the ear appeared. Therefore it gave only thirty-eight bushels of

grain per acre, but three tons of straw, which proved its great strength. To this crop one of potatoes and two of wheat succeeded; but it is the culture of this field for crop 1841, and the result, which chiefly constitute this report.

It was all equally dressed with seawater; and four acres of the same quality and description were measured and staked off. Two of these acres were ploughed twelve inches deep, with two horses, and two of them eighteen inches deep, with four horses. These two portions in all other respects were cultivated and managed exactly alike. They were planted with potatoes of the Don species, in the last week of April, eight inches deep, twelve inches asunder, and in drills thirty inches wide, running at right angles to the furrows of the experimental ploughing. The potatoes were planted deeper than usual, therefore the shoots were longer in coming through the ground; but when they did appear, it was with great strength and regularity. They expanded their broad deep-green leaves, and grew vigorously; in the dry sandy soil, in a very severe and long-continued drought. It was soon evident that the deepest-ploughed portion had the advantage; the stems and branches of its plants were stronger, and they first covered the ground.

The potatoes were lifted in the last week of October, when it was found that the land ploughed twelve inches deep produced fifty-seven bolls per acre, and the land ploughed eighteen inches deep produced sixty-nine bolls per acre, being a difference of twelve bolls per imperial acre, of four cwt. to the boll.

It is a condition annexed to the premium offered to the Highland Agricultural Society for experiments in deep ploughing, that one half of the land used "shall be cultivated in the ordinary way." By evidence before the Agricultural Committee in 1836, the depth of ploughing in this county is from six to nine inches. If that depth had been taken for the lowest extreme in this experiment, the difference in the production of the two portions, it is believed, would have been greater; but as this field had been ploughed twelve inches deep for years, its ordinary depth was adhered to, and the difference is certainly sufficient to establish the advantage of deep ploughing.

As to the quality, it is excellent for the season from both portions of the land, and in that respect there is no difference. The potatoes from the deep tillage were larger, more of one size, had fewer small ones, and not so many of a green colour as those from the other division. The quantity on the deep tillage is eighty seven bolls per Scots acre, which is a good crop for any year, and it will readily be granted that it is far above the average of the district this year, many fields not producing half a crop. A superiority so striking must therefore be ascribed to deep culture, being on both portions deeper than ordinary, which furnished moisture in a very dry and scorching season to a sandy soil, and raised its produce above that of richer lands. But though this is a great crop for the season, it must have been still greater if the field had been less exposed, as it has no shelter; and three days of very violent wind, in the first week of August, broke down the plants, which, from their great luxuriance were then very tender, it checked their growth.

The practical conclusions to be drawn from this experiment are—

First, That deep ploughing increases the produce.

Next, That, as both portions of the land used in the experiment were opened up eighteen inches deep by the sub-soil plough for crop 1837, the full benefit of that operation is not obtained till the earth so loosened is again

ploughed up. And the reason is evident; for it is then only that the soil is deepened, by an addition from the sub-soil with which it is intermixed, and rendered more fruitful.

Lastly, If deep ploughing increases the produce, it increases also the supply of vegetable manure; and a greater portion of manure, added to improved culture, must produce a progressive increase of fertility and of produce.

This experiment was begun on the glebe of Dunbar for the amusement of the reporter, and before he knew that any premium on the subject had been offered by the Highland and Agricultural Society.

SIR ROBERT PEEL AT THE LITCHFIELD CATTLE-SHOW.

There are some influential farmers in this country, who look upon it as *small business* for them to compete for premiums at a Cattle Show; or if they do compete and fail of success they feel dissatisfied with the awarding committees, and accuse them of wilful misconduct or a want of judgment. Such persons we would refer to the noble example of Sir Robert Peel, Prime Minister of England, and the most influential man in the British Empire, if not in the world. Sir Robert Peel is Vice-President of the Litchfield Agricultural Society, and was a competitor at a late exhibition of that Society, but failed of obtaining a premium. The following extract is the concluding portion of a speech made by him at the dinner on that occasion.—*New Genesee Farmer*.

"Gentlemen, if my life and health is spared, I shall have the satisfaction of presiding at your next meeting. (Cheers.) Meetings of this kind have a great tendency to remedy one evil under which the agricultural community labour. From the extent of your farms you live separately, and do not possess those means of meeting frequently and of profiting by mutual intercourse which are possessed by persons in the manufacturing districts. These meetings bring you together in unrestrained and free intercourse, and tend to destroy that unhappy prejudice amongst farmers that the particular course of agriculture pursued by each is the best. (Hear, and a laugh.) Why, there was not a competitor here to-day who did not leave home under the perfect conviction that his beast was the best. (Laughter.) I myself participated in that delusion when I left home, but I found out that I was unsuccessful. (A laugh.) So with the farmers generally. When they come to these meetings, they see better beasts than their own, and they go away with the opinion that they have not yet arrived at the utmost limits of success, but that increased attention will lead to more improvement. (Hear, hear.) I hope all who have been successful this day will strive to maintain their position next year, and that the unsuccessful will try to deprive them of the advantage they have gained. I do hope, gentlemen, that I shall have the satisfaction of meeting you again next year. I am afraid that from the occupation of my time, and my want of experience, I shall not be able to give you so excellent a lesson as my noble friend has delivered to you this day; but this I can assure you, that I shall equal him in the desire to promote the prosperity of this institution, and that there is no one, however versed he may be in practical agriculture, who feels, whether on private or on public grounds, a more sincere desire than your Vice-President entertains, to see the agriculture of this country so prospering that it may improve the condition of those who pursue it, and add to the strength and resources of the British Empire." (The right honourable baronet sat down amidst loud and general cheering.)

THE MECHANIC'S SATURDAY NIGHT.

Now wife, and children, let's be gay;
My work is done, and here's the pay—
'Twas hard to earn, but never mind it;
Hope I've reared the sheep, and peace shall bind it.

Six days I've toiled, and now we meet
To share the welcome, weekly treat;
Of toast and {ale, } of rest and joy,
Which, gained by labour, cannot cloy.

Come ye, who form my dear fireside—
My care, my comfort, and my pride;
Come now, let us close the night,
In harmless talk, and fond delight.

To-morrow's dawn brings blessings, peace,
And each domestic joy increase
To him who honestly maintains
That course of life which heaven ordains.

For this and every blessing given,
Thankful we'll bow the knee to heaven,
In God's own house, our voices raise,
With grateful notes of prayer and praise.

Sweet's the tranquility of heart,
Which public worship does impart;
And sweet's the field, and sweet's the road,
To him whose conscience bears no load.

Thus shall the day, as God designed,
Promote my health, improve my mind;
On Monday morning, free from pain,
Cheerful I'll go to work again.

Our life is but a lengthened week,
Through which with toil for rest we seek,
And he whose labour well is past,
A joyful Sabbath finds at last.

To the Editor of the Farmer's Journal.

LIQUID MANURE.

When accounts of the great value of liquid manure, as proved by experiments, have been published, and its great utility is so evident on examining the subject, it is surprising that farmers do not give heed to the subject. Every one is aware that "manure is the farmer's gold mine," and great attention is given to the subject in making compost heaps, procuring various materials, and buying manure, often at a high price, all which may be profitable; but the far cheaper method of saving liquid manure should not be neglected, as it generally is.

Animal bodies are constantly wasting away and acquiring a new supply of matter from food. The waste passes off in urine and contains a large amount of fertilizing matter, and being in a liquid state is well adapted to support plants; as soluble matter only can be taken up by the roots of plants. Though dung may appear far more valuable, from its body and substance, that part only which is soluble will be appropriated by the plant to its support.

Arthur Young manured four equal portions of a field, one with dry cut straw, another with straw soaked five hours in fresh urine, a third with straw soaked in like manner fifteen hours, and a fourth with straw soaked three days; to a fifth portion nothing was applied. The whole was tilled alike and sowed with grain. The product of the first was 30, the second 50, the third 63, the fourth 126, and the fifth 9. This experiment demonstrates, by the straw, the great value of vegetable matter for manure, and by the urine, the great fertilizing properties of liquid manure, which is wasted by most farmers in the country.

A farmer in Scotland dug a pit near the feeding stall, and filled it with loam, at an expense of 22 dollars. On this he conducted the urine of 14 cattle for five months, and the whole was saturated. The contents of the pit were 280 loads, which were applied at the rate of 40 loads to the acre. There was no per-

ceptible difference between the crops on land thus manured, and on that to which an equal quantity of dung was applied. So he considered the liquid and solid manure of equal value when applied to the land; and the expense in the saving and application of liquid manure, will not justify its waste, and it will afford a large profit beyond all the expense and trouble.

There are various ways of saving liquid manure, and every farmer can follow that which is most convenient, and by experiments learn which is best. Dry loam, and litter, such as leaves, brakes, weeds, refuse straw, &c., may be thrown on the floor to absorb the moisture, or a portion of plaster sufficient to be used with the manure may be used to absorb the moisture.

Another method is to make the floor tight, with a chennel at the back part, to drain the urine into a cistern, from which it may be carried to the field and sprinkled upon grass or tillage lands, or used in compost heap, or it may be directed on a quantity of loam placed to receive and absorb it.

The cattle house may be so constructed, that loam, sods, &c., may be placed under the floor to receive the liquid manure as it runs through. If dry loam be used, it will require much less to absorb the liquid manure, and it will be much lighter to cart.

As manure is of so much importance to the farmer, and as a large amount of liquid may be collected and applied conveniently, and at little expense, I hope the subject will no longer be neglected. Let every farmer contrive some method to save it this fall, and learn from his own experience its great value.—*Economy.*

KEEPING CATTLE WARM IN WINTER.

S. Berwick, Me., Feb. 18, 1841.

When I commenced farming, I prepared a good barn-yard, inclosed with a close fence, and a well of water therein, covered with a shed. I used to turn out my cattle in the morning, and suffer them to remain out all day, unless there was a severe storm. The cattle were fed at noon with some coarse fodder spread on the snow in the barn-yard, or in racks under the shed. A plentiful supply of water was kept constantly in a trough in the yard. Now, sir, for years I thought that this was the best way I could manage. I have since adopted a different course. My cattle are fed several times in the morning, and carefully carded; and at about nine o'clock are turned to water. While the cattle are drinking, the stalls are cleared out and littered, and in about one hour the cattle are again tied out. If the weather is stormy or very cold, they are permitted to return to their stalls as soon as possible; but if the weather is mild, they are suffered to remain out longer, but not more than two hours. They are fed in their stalls several times during the day, always giving them little at a time. In the afternoon they are again out and watered, and suffered to remain out as long as in the morning. The stalls having been again cleaned out and littered, the cattle are again tied up for the night. Great care is taken to make the barn warm. When the weather is cold, the doors and windows are closely shut. In this way the cattle, being more comfortable, are kept at much less expense, and thrive better. A cow will give more milk when kept warm than when exposed to the cold. Every farmer knows that cattle eat more in severely cold weather; and, notwithstanding, then cows give less milk. Few farmers take sufficient care to protect their stock from the severity of the weather. Hogs, also, give more on the same food, when kept warm.

WM. A. HAYES.

New England Farmer.

CRUELTY TO BRUTES.

A man of kindness to his beast is kind,
But brutal actions show a brutal mind;
Remember, He who made thee, made the brute—
Who gave thee speech and reason, formed him mute.

He can't complain; but God's all-seeing eye
Beholds thy cruelty—He hears his cry;
He was designed thy servant, not thy drudge,
And know that his Creator is thy Judge.

HOW TO MAKE GOOD COFFEE.

The question is often asked, why it is, that good coffee cannot be procured in this country? The reason is simply this: coffee is spoiled in the burning, and sufficient care is not taken in preparing it for the table. To make coffee equal to the French is very simple, and very easy, and for the benefit of all good housewives, and all lovers of good coffee, we will state the manner in which it should be done. First, procure the best coffee possible. See that your cook does not burn it, but roast it to the color of a golden brown, and never allow it to remain in its burnt or roasted state for more than three days, as after that time it will lose its strength. Secondly, in lieu of the ancient method of boiling your coffee for an hour or more over a hot fire, and then being obliged to settle it with such rarities as fish-skin, egg-shells and the like, procure a biggen, as it is termed, and make a distillation or decoction by putting the coffee in the apartment in which the strainer is, and turning thereon boiling hot water. Take care that the nose of the coffee-pot has a stopper to prevent the steam from escaping, and cover the top of your biggen immediately after having turned the water upon the coffee; as it is a most important requisite to have the steam confined. Judgment is also to be used, as to the amount of coffee required, and also as to the quantity of water to be used. The best coffee may be spoiled by too much water applied to it. The coffee should be made very strong; and, if strong enough, its color will be quite black. Lastly, having made your coffee of great strength, do not use hot water to dilute it, but, in lieu thereof, take boiling hot milk, and weaken the coffee to your taste. By following these directions you will have as fine a cup of coffee as can be made in any country.

The time required for making coffee in this manner, is but a few minutes, the coffee being made as fast as the liquid issues through the strainer.—*Daily Times.*

The following anecdote may give encouragement to the industrious:

Not long ago a country gentleman had an estate of £200 a year, which he kept in his own hands until he found himself so much in debt, that to satisfy his creditors he was obliged to sell the half and let the remainder to a farmer for twenty years. Towards the expiration of the lease, the farmer coming one day to pay his rent, asked the gentleman whether he would sell his farm. "Why, will you buy it?" said the gentleman. "If you will part with it, and we can agree," replied the farmer. "That is exceedingly strange," said the gentleman, "pray tell me how it happens that, while I could not live upon twice as much land, for which I pay no rent, you are regularly paying me a hundred pounds a year for your farm, and are able, in a few years, to purchase it?" "The reason is plain," answered the farmer, "you sat still and said go—I got up and said come—you laid in bed and enjoyed your estate—I rose in the morning and minded my business."

From The Monthly Visitor.

ASHES.

MR. HILL.—I have read in several of the agricultural papers, within a few months past, various accounts of the value of ashes in agriculture, both leached and unleached, and, in most cases, their application was attended with decidedly beneficial results. But there is a great difference in the value of soapers' leached ashes, and those from the pot or pearl ash factory. Dr. Dana says, "the soap chandler, in leaching ashes, uses about one peck of lime to each bushel of ashes." This is used for the purpose of taking up the carbonic acid in the ashes, which makes the ley caustic; it then readily combines with the oil or grease, and forms soap. The lime used with the ashes is "quick lime," or in other words lime that has had its carbonic acid driven off by the process of burning. After being leached it is carbonate of lime, from the carbonic acid derived from the ashes, and is chemically the same as before being burnt. Then in 125 bushels from the soap boiler's, we got 100 bushels of leached ashes, and 25 bushels of carbonate of lime. The manufacturer of pot or pearl-ash, covers the bottom of his leach-tubs with swingle tow or straw, and puts over it a bushel or two of slacked lime, and does not renew the lime again during the season of making; consequently, there is no lime mixed with the leached ashes from the potash.

From the above facts, every one will see there is a material difference in the value and effects of the two kinds. Therefore, the farmer that uses leached ashes from the potash, expecting to realize the same results as those do that make use of soapers' ashes, will be likely to meet with disappointment. I have never seen Dr. Dana's "Agricultural Manual," but have read a few extracts as published in the agricultural papers. In one of them, the doctor goes into a calculation to prove that soils are not exhausted of their lime and ashes by cropping or cultivation. For by his figures he makes out that an acre of soil to the depth of six inches "contains 3,626 lbs of lime, and 73,311 lbs of potash, or nearly 13 ton of lime, and 36 tons of potash." Well, every farmer must say there is enough in all conscience to lime and potash in his soil; and I do not at all dispute the doctor, but if there is that amount I believe it is nearly insoluble, and therefore of little use. Liebig says, the lands in Virginia, by long cultivation, become entirely unproductive in wheat, for want of potash in the soil; he says (if I recollect right, it being more than a year since I have seen his book) that there is twelve pounds of potash annually carried off the soil in the grain and straw of an acre of wheat—1200 lbs in a hundred years. But, according to Dr. Dana's statement, there would be left there, in the soil, some 36 tons of potash per acre. Now, Mr. Editor, I am a "plain, practical, every-day farmer," and shall not attempt to decide, where learned doctors disagree. But being willing to contribute my mite, for the benefit of our craft, I will state a few facts, and give my views, with the hope that they may result in further investigations, but not having the happy talent of saying much in a few words, I hope you and your readers will excuse the long yarn I am about spinning.

I think I can furnish a few facts to prove that the application of ashes to the soil, in addition to the 36 tons, is attended with beneficial results. I believe also the part that ashes perform in agriculture is not fully understood. The general opinion is that it acts as a stimulant to the growing plants, and a decomposer to vegetable matter in the soil, and perhaps the above opinion is partially correct. I apprehend the most important part ashes perform in agriculture, is in decomposing silica, and rendering

it soluble, so as to be taken up by the rootlets of plants, and by proper vessels carried to every part, and there assimilated and applied to the various purposes for which nature intended it, viz., to form the skeleton of the plant or tree, the glaze on the corn-stalk and kernel, the outer covering upon wheat and other straw and grasses, &c. The material of this glaze is derived from that kind of rock called quartz (sometimes called rock chrysal or white flint stone), it is dissolved and rendered soluble by an alkali. Some kinds of trees require a much larger quantity of their structure than others, and produce a much greater amount of ashes upon being burnt. The burning of wood converts it again to silica, the insoluble part of ashes is mostly silica. Oak requires a much larger amount, as it is much heavier than pine wood. To prove the solubility of silica by potash, I will state a few plain facts, because we common farmers want facts, and illustrated in a way that we can understand them. From the fact that ley dissolves the silica in wood, tubs for leaching ashes are usually made of pine, as they are not so powerfully acted upon by the ley as if they were made of oak. An oak tub, after having been used a few times for a leach tub, would have its silica dissolved, and a stave four inches in width upon being dried, would shrink to two inches, wholly in consequence of the dissolving of the silica (gritty part). But the ashes do not operate upon the vegetable tissue, or fibre of the wood.

When it was the custom of farmers' wives and daughters to spin their thread from flax, the next process was to boil it out in ley to soften and remove the harshness of the thread by dissolving the minute particles of silica, but it did not destroy the strength of the vegetable texture. Manufacturers of paper from straw go upon this principle: the straw is boiled in lime water or ley, the glaze upon it is dissolved, and the vegetable fibre is unharmed. From these facts, then, it would seem the alkali acted upon the inorganic rather than upon the organic or vegetable matter.

Dr. Dana's statement of the amount of potash may be correct; but I will try to prove that I am right in my conjecture as to its being insoluble, and therefore inert. Common granite is the prevailing rock in New-England, and is composed of three different minerals—quartz, felspar and mica; quartz is supposed to be of an acid nature—felspar contains 12 to 15 per cent. of potash—mica from 5 to 8 per cent. of potash. Chemists tell us that the rootlets of living plants and trees have the power of decomposing granite rock, to obtain the potash we find in their ashes. 'Tis said, "the living plant is a consummate analyst" I will, though with much diffidence, give you my theory of plants decomposing rocks.

The decomposition of vegetable matter always produces an acid—or in other words the decaying or rotting, or more properly the slow combustion of vegetable matter partially converts it into carbon. The oxygen of water combines with the carbon and produces carbonic acid. This acid in its liquid and gaseous form, having an affinity for the alkali in the rock dissolves it; the alkali dissolves the silica (quartz), and by the endosmose principle of the living plant, the water holding these in solution is drawn up by the rootlets, and these salts disposed of and assimilated to the purposes designed by the first great cause. In proof of this position I forward you a piece of rock, not acted upon by the "living plant," but by decomposing vegetable matter, and it will convey to your mind a better idea of my meaning than I can by the pen.

In some situations, there is a superabundance of alkali and silica—in others just the

quantum needful; and in others a deficiency. These propositions I think I can explain to the satisfaction of you and your readers. Upon the banks of a small river, running through this town, there is frequently a strip of land one or two rods in width, and sometimes several rods in length, a few feet above the bed of the river. Upon every overflow of the banks by a freshet, there is left upon them a deposit of gravel and fine sand; yet every year these strips produce a tolerably heavy crop of red-top grass, generally free from any mixture. When secured in good order for hay, it has every appearance of first rate winter fodder. Yet our cattle will not eat it unless nearly driven to the borders of starvation. Again, there is a similar kind of grass, only more wiry and jointed, growing upon our gneiss and granite ledges, and frequently quite a thick growth of it, where the soil is but two or three inches in depth; it is red-top grass, but from its small and narrow leaf and wiry appearance, but few persons would suppose that it was the same kind of grass that was growing within six feet of it, where the soil was deeper. The grass on the river bank, from the comminuted and fine particles of quartz, felspar and mica, takes on and in such a quantity of silica, that it is hard and difficult to masticate, and probably it is not so nutritious as if grown where there was more vegetable matter in the soil. That, upon the ledges, the roots of the grass rest directly upon the rock and decompose it: this contains more silica, and is harder than that upon the river bank. This establishes my first proposition.

There are other situations where all the necessary constituents for a perfect development appear to be rightly balanced. With such spots all our farmers are familiar. They are found wherever the wash from rocky or gravelly roads is carried over grass lands, the wheels of carriages and travel on the road are continually grinding to powder the component parts of stones and rocks in the road, which renders their salts soluble. This with the animal and vegetable matters are sprayed over the ground by every heavy shower; the result is a heavy crop of grass. Ierdgrass in such places is frequently found four or five feet in height, standing perfectly erect till mowing time, and affording palatable and nutritious food for cattle. This I offer to sustain in my second proposition.

My third was, that there were others where there was an absolute deficiency of potash and silica, but an abundance of nutritious matter. Where a piece of land has the wash of a barn, the grass starts early in the spring, and bids fair to yield a great growth of grass; but for want of stamina it frequently falls or lodges before it heads out, and when made into hay it will weigh light according to its bulk: much of this is occasioned by a deficiency of silica. The same results are frequently exhibited on reclaimed meadows, where there is a great amount of decaying vegetable matter. A compost of manure, with a large quantity of ashes and fine sand, is the rich dressing for such spots.

When the primitive growth of wood on our new lands is felled and burnt upon the ground, and there is sometimes two or three hundred cords per acre, and none of the ashes carried off, we almost invariably obtain a heavy crop of wheat or rye. I have known of more than 50 bushels of wheat, or 60 bushels of rye per acre on such lands. The intense heat shivers up the rocks: the great amount of alkali readily dissolve the disintegrated rock, and, in its soluble state, it forms a stiff stalk, with a hard, thick glaze upon the straw, which prevents the rupturing of the sap vessels; the sap, instead of oozing out upon the stalk and rotting, is carried to the head of the grain, and

fills it with a heavy, plump kernel. The crops of grass that follow for several years correspond with the grain crops, but ultimately the vegetable matter is used up, and nearly all the soluble potash is used up—so that the farmer must resort to the plough and manure to get a fair crop again.

Every practical farmer who has attempted to raise wheat on highly manured land that has been long cultivated, knows that it is liable to lodge, and very frequently rust or mildew. These two evils might, I think, be nearly remedied by the application of the right amount of ashes—if that right amount could be ascertained and obtained by the farmer. As to the amount, he need not fear of getting on too much, if he will just reflect how much is left upon an acre of burnt land, where two or three hundred cords of hard wood is converted into ashes; but in all probability a very much less amount would answer. I conceive there is but little difficulty in any or every farmer's obtaining his supply, by ploughing up a small patch of sandy or gravelly sward land and letting the furrows remain till dry, then commence a fire with a small quantity of wood, and gradually pile on the sods, and very large heaps may be thus converted to ashes. The vegetable matter would be burnt, the particles of quartz, felspar and mica would be broken and shivered thereby, rendered soluble, and afford those very salts so essential to a good growth of grain. After the mass had become cool enough to be removed it should be put under cover, to be applied to his wheat ground, after being ploughed in the spring. In all probability fifteen or twenty cartloads would have the desired effect, and the good effects would also be felt for several years by the succeeding crops.

Frequently promising crops of wheat are almost entirely destroyed by rust. On highly manured lands, if there happens to be a day or two of warm, steamy, good corn weather, in July or August, at about the time wheat is in the milk, the rush of sap is so great, that if it do not produce apoplexy, it does that which is nearly as bad—it ruptures the tender and inefficient coating in the stock; the sap vessels burst; the sap exudes, and forms a coat of rust, and the crop is nearly ruined. In some of the agricultural papers the last year, I read an account that wheat never rusted where it was sowed upon an old coal heath, and that grass and other crops always succeed well, and were luxuriant. I think this was attributed to the remains of the charcoal; but perhaps a part might be justly attributed to some other cause—to its furnishing a thicker coat of glaze to the grain, and preventing the rupturing of the sap vessels.

I might cite a great many more facts in addition, to satisfy any one of the benefit of adding to our cultivated soil, potash in a more soluble state than we find it, as locked up in sand, gravel, stones, or rocks. You will find some of them in Mr Colman's 4th Report, viz. Mr Haggerton's compost of peat and barilla, Mr Jarvis's account of glass factory manure, Mr Whipple's statements in regard to the value of salt petre or nitre—that being about one-half potash, 102 lbs of nitre contains as much potash as 79 lbs of pot or pearl-ash of commerce. He applies about 150 lbs. to the acre.

But ashes are also useful in agriculture for neutralizing acidity in soils, and for the formation of nitre or salt petre for agricultural purposes.

In the sixth number (June, 1842), of the *Farmer's Monthly Visitor*, there is taken from the *Albany Cultivator*, an article or review of Dr. Dana's *Muck Manual*. In this article there is a statement made by the Doctor, and

another by the reviewer, which I think are calculated to lead to erroneous conclusions. The Doctor says, his first principle in agricultural chemistry is "one rock and consequently one soil." From this he lays down his second principle, "That rocks do not affect vegetation which covers them." The reviewer says that "rocks certainly exert a powerful influence on the soil that covers them in many cases," but this he says, "is owing to their physical condition, and not to their chemical constitution." Now, I think, to the mind of every farmer, the plain English of the above would be this: All soils are derived from rocks; all rocks are chemically the same; ergo, the chemical constituents of rocks never affect vegetation.

For the sake of many of our farmers, I wish the above was true; but the weak and sickly appearance, and light and short crops of corn, we every year see growing upon soils containing sulphate of iron—iron pyrites, or what farmers more commonly call brimstone rocks, proves the above untrue. There are six thousand acres of land in this State, that once yielded heavy crops of corn, that now with a dressing of fifteen or twenty loads of manure will not give more than the same number of bushels of corn, and without manure it would not yield five bushels per acre; and this decrease in amount of crop, is almost wholly in consequence of sulphurous and sulphuric acid in the soil, derived from the disintegration of rocks containing sulphur and iron. Hundreds of our farmers have dug solid and heavy rocks from the soil, and laid them into wall, and soon the oxygen of the air and water combines with the iron, and it is decomposed and converted to an oxide of rust; this sets the sulphur free, and that combines with oxygen and forms sulphurous or sulphuric acid, according to the amount of oxygen in combination with the sulphur. This renders the soil acid, and unfortunately, the more of this land is worked by the plough and harrow, the worse it is, by exposing the stone more and more to the action of the oxygen and eliminating increased quantities of sulphur.

When corn is planted on lands, containing this acid, derived from such rocks, it generally looks well and promising for a few weeks, at least as long as the plant draws its nourishment from the decomposing kernel. But after the rootlets on the main roots are formed, and they begin to fulfil their office, by absorbing water from the soil, a re-action takes place and the plant remains stationary for several weeks—the leaves assume a reddish purple colour, the main root is corroded or rusted off, to the length of one or two inches, and the farmer generally lays all the blame to worms, while, in fact, there may not be a dozen in an acre. After a while a new set of roots start out at the lower joint, but so few and weak, the crop is light, and a large portion of the corn in attempting to cut it, is pulled up at harvesting by the sickle.

I think upon inquiry among farmers having land containing this kind of rock, you will find hundreds that will confirm my statements. Here the inquiry may arise, is there any remedy? Yes: unleached ashes will neutralize the acidity of such soils, (precisely as salaratus does sour dough), by combining with the free acid of the soil and forming a neutral sulphate of potash. But I have my doubts about Plaster of Paris being useful on such soils, for it is composed of 40 parts sulphuric acid, (oil of vitriol), and 28 of lime, but the acid is neutralized by the lime, and therefore inert. But reasoning from chemical principles, if we apply to such soils, hydrate or slacked lime, it will combine with the acid of the soil, and the lime will be converted into sulphate of lime—Plaster of Paris—and thus remove the free acid from the soil, in the ratio of 40 lbs. of

acid to 28 lbs. of lime. It can also be remedied by very heavy dressings of manure; but that is not always within the reach of the farmer.

"It is well ascertained that different soils have different properties; prejudicial to the growth of some plants, and favourable to the perfection of others; and it would be a most fortunate circumstance if these differences in the properties of soils were better understood, and more generally acted upon by the great mass of farmers. Notwithstanding the bad character I have given soils containing sulphur in excess, for growing corn; and for many other crops, it is equally prejudicial; yet is peculiarly favourable to the perfection of others. In Jones's 'Conversations on Chemistry,' page 136, speaking of sulphur, he says, 'it exists in some vegetables, especially those of a cruciform tribe,' that is, the tribe of plants consisting of cabbage, turnip, mustard, radish and cress, of every variety. In some respects this family of plants possesses peculiarities contained in no other tribe.

In the December number of the *Genesee Farmer*, page 185, there is an extract copied from the *Farmer's Journal*, (Eng.) on soils, by Wm Chatterly, from which I make the following extract—

"The state of chemical combinations, in which the various ingredients of the soil are found, also materially influences its fertility, though such combination should differ somewhat for particular crops. For instance, wheat requires, that a portion of silica, should be in union with potash, and for clover, that sulphur should exist in the soil in the condition of a soluble sulphate. In confirmation of the above theories, I will relate a few facts that have come under my immediate observation. In 1837, I came into possession of an old farm that had not a furrow ploughed on it for 20 years. In one of the fields there were 12 or 15 acres that had been yearly mowed all this time, and did not average 5 cwt. of hay per acre. Many of the rocks and stones in the soil were of the 'brimstone order.' That spring I ploughed about an acre and a half—being as far as I could judge, the best land of the field, manured with about 20 loads of manure; something over an acre was planted with potatoes, the rest with corn. From the friable appearance of the soil, and the long time it had lain in grass, I expected to have raised a good crop, but in July and August, I observed many of the tops wilted and dead. Upon examination, I found the stalks from the surface of the ground to their roots, entirely corroded or rusted off by some cause to me then inexplicable. I think the crop was less than 80 bushels per acre. The part planted with corn amounted to nothing except for fodder. The next year, (38) all except one-tenth of an acre was manured with four cart-loads of coarse manure, ploughed twice, and sowed with ruta baga, about 20th of June—harvested 1st of November, trimmed close, and accurately measured, and the yield was 100 bushels—or 1000 per acre. In '39, the produce of turnips was very good. The years '40 and '41, in consequence of drought, the turnip seed most failed to vegetate, and what few did, the insects destroyed. The past season, (42) I planted three small pieces of land with squashes and pumpkins. They were destroyed by the black bug; one of the pieces was set out with ruta baga plants in July, several very warm days succeeded, and the tops were killed to the surface of the ground, and it was many days before they showed any signs of life. When they were harvested in November, many of them were the largest turnips I ever saw. The other pieces were sowed late in July with English turnip seed, by merely hoeing them in, and nothing farther was done to them till they

were harvested. The product was nearly 20 bushels of as fine turnips as ever I saw. I cannot doubt but the sulphur in the soil exerted a beneficial influence upon the growth of the turnips."

My experience of four years in cultivating clover upon this kind of land, fully confirm Mr. Chatterly's statements; but from the length of this paper I must forbear to go into particulars.

The opinions I have expressed in this communication, I trust are correct; what I have stated as facts, I believe are so, but if I am in an error, I shall be happy to be set right, as I have no favourite theories that I wish to establish at the expense of truth.

LEVI BARTLETT.

Mr. Bartlett's Agricultural Essay, which will be found in this paper, is a masterly production, distinguished alike for sound sense, science simplified, and practical knowledge. It should be studied as well as read.—*Balt. Am. Far.*

RULES FOR IMPROVEMENT IN BREEDING STOCK.

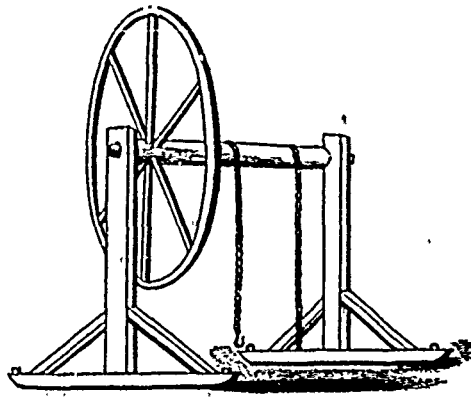
The rules for breeding all kinds of domestic stock, whether the horse, the ox, the sheep, or the pig, are very simple, the judgment, however, required in making selections and coupling animals together, with a view of continual improvement, can only be acquired by persons possessing an innate talent for the thing, and long personal experience in its practice. Still, every one who is disposed may effect something, and for their guide we merely give in a few words the long-adopted principles of most eminent breeders of domestic animals.

1. When better materials do not exist, or the person wishing to make the improvements has not the means of going abroad for so doing, choose from the best natives at hand for this purpose.

2. But when it is possible to do so, obtain thorough-bred males of the proper kind from superior improved stocks, to cross on to the native female, and so continue breeding up the grade females to the thorough-bred males.

3. Be very careful on a thorough-bred stock to use no male which is not at least equal to the females, and if he can be found superior, so much the better, for this will ensure still further improvement, if possible, in the progeny.

In various communications to the agricultural journals for the past five years, we have repeatedly urged on the farmers of our country the practice of the first and second rules above; for in following them, great and decided improvements may be made at a very cheap rate. What our countrymen must fail in, except in New England, where the beautiful reds predominate, is a want of uniformity prevailing in their stock. Animals look much better together when they match: that is, that all shall be as near alike as possible in size, in shape, in color, in their horns, and in their general expression. Thus formed, they reflect a beauty on each other; and although they may command no particular attention single, yet as a body they will excite respect, and if pretty good, not unrequited admiration; for they excite at least, that there is an established system in their breeding. In Europe these incongruities do not so generally prevail. In one district, the traveler observes that the animals are nearly all black, without horns in another, they are uniformly the same color with horns, a few miles beyond, and we find them suddenly changed to a pure red; again, they may be white, and further they appear in mixed colors, though still preserving a uniformity, as in the case of the Italian, Swiss, Dutch, Jersey, Ayshire, Hereford; and Durham cattle.—*American Agriculturist.*



STUMP MACHINES.

MESSRS. GAYLORD & TUCKER.—In your excellent paper, I find directions, hints, instruction and information with regard to every subject connected with the scientific practice of agriculture, with one exception, and that no small one for at least the newer portion of our country; and that is the getting rid of stumps. A great part of Vermont, New Hampshire, Maine, the northern part of New York, and various other sections of the country, are or have been pine plains, where pine stumps are so thick as to render it almost impossible to plough the land, at least with any kind of comfort. In some cases I have counted 200 to the acre. To dig these by hand is a most laborious and difficult undertaking, and when they are dug, it is no easy task to haul them off, or to burn them, as is sometimes practised. Besides many roots are necessarily left in the ground to snag the plough, and the poor subsoil is turned up on the surface by the process of digging, leaving (unless afterwards highly manured) a poor spot wherever there was a stump. Now the object of this communication is to show to your numerous subscribers an easy, economical and complete way, not only of removing stumps from the land "in toto," but of converting them into excellent fire-wood. The accompanying drawing represents a stump machine, invented 15 years ago by two brothers named Manchester, of this place. It is simply the wheel and axle, on a large scale. The uprights should be 11 feet high, 10 by 12 inches square, of hard wood. The sills 7 by 9 inches square, 14 feet long, and turned up at the ends, sled runner fashion, to enable it to slide easily on the ground. Let the posts be firmly morticed into the sills, and well braced. The axle or shaft should be white oak, ash or maple; 18 inches in diameter, with the gudgeons 8 inches. It should be 20 feet long, and 2 pins should be driven into it, outside the posts, to keep them together. The wheel should be about 18 feet in diameter, with 8 spokes, 4 of which should go through the axle, and the other 4 set as deep as possible into the shaft, without cutting away too much wood, for fear of weakening it. The spokes are to be white oak plank, 8 by 3 inches square. Let the felloes be sawed out of 4 inch plank, and planked by two courses of inch boards on the two sides, in such a manner as to "break joints" (as the phrase is) with the first set; thus, and at the same time, to form a groove to keep the rope from slipping off. Then get two strong chains made of 1½ inch iron, and 12 feet long each. Fasten one end of each by a strong staple to the axle, and on the other end of one have a hook, on the other a large link or ring. Then fasten one end of a 1-1-4 inch rope on the wheel, give it two or three turns around it, and your machine is complete. Now bring your two yoke of cattle and one assistant; hitch them to the staples (which should be in each end of each sill); and drive where you like. Dig a hole under

the main root of the stump (on one side if possible), and pass your chain under it. Hitch your cattle to the end of the rope, and they will draw any stump that ever grew in the ground. Then take off the dirt from the stump with a spade, and it will fall back exactly as it came up, leaving no hole to fill. There will also be no roots left in the ground for future botheration, and the soil which was about the stumps having never been tilled, will be distinguished as good spots instead of bad ones.

Now have an auger made, such as pump-borers use first, only about four feet long, having a screw, like a cork screw at the point. Bore a hole down exactly in the heart of each stump (for however rotten at the top, they will generally be sound at the junction or knotting together of the roots), and put down about 3 inches of coarse blasting powder. This will blow the stump to atoms, and you may then convert them by means of your beetle, wedges and axe, into first rate wood for home consumption. Many farmers will not understand blasting, but it is, after a little practice, as safe and simple an operation as any other on the farm. You will want a crowbar, a priming wire of the same length as the auger, a 4 lb. hammer with a handle 5 inches long, and some match paper made into strips 3 inches long, and half an inch wide. After your hole is bored (and be careful not to have it go clear through by a foot or so), put down your powder. Then put in your wire, which should be made tapering, the small end about one-fourth of an inch in diameter, on one side of the hole. Now fill the hole with pounded brick and damp clay alternately, pounding it down with the small end of the crowbar, and starting the wire every now and then, till it is full. Now draw the wire by putting the small end of the crowbar through the loop in the wire, and striking it up with the hammer, taking great care not to let the least particle of dust fall into the hole. Then fill the hole slowly with powder, apply your match paper (common wrapping paper steeped in a solution of saltpetre), touch fire to the end of the match, and take to your heels; and, depend upon it, the stump's powers of locomotion will be vastly assisted by this operation. The machine for drawing them will be cumbersome and heavy, but it will be strong, simple and effective. The whole cost of this apparatus will be between 50 and 100 dollars, but it is well worth while for every large farmer, or 3 or 4 small farmers in company, to possess one, wherever stumps occupy the ground. It is enough to say that the machine made and tended by the inventor, has been in constant requisition since that time (15 years), and never went at a stump which it did not take up.

I hope this article will not prove too lengthy for your columns, being a subject of very great importance to thousands.—*Albany Cultivator.*
Burlington, Vt., Aug. 14, 1843.

THE FARMER'S HALL.

From the Ohio Farmer.

Oh! is there ought like the "Farmer's Hall,"
With its whitened fence, and its poplars tall,
And its mossed roof of shingles brown;
Is there ought like this in the sickly town?
Is there ought so fine as summer bowers,
Of grape and clematis woven with flowers,
Where often the wild bee with earliest hum,
Gladdens our ear soon as sol's rays come;
And then the green lawn spread with dandelions

gay,

And the rill too is near with meandering way.
The egplant wild and briar so sweet,
Oh! when but at farm do we such sights meet?
And far in the vale too, may ever be seen
The kine grazing slowly in pastures so green,
And the feathered tribe all in the bright stream are

laving,

Even cornfields and meadows seem with life to be
waving

Within are scenes my pen cannot portray,
There is the neat sandy floor scoured so white
every day,

The clean cherry table, the "oaken chest" too,
And cupboards with tea cups and plates of pure
blue;

The looking glass dressed in the wild princess fire,
The window and mantle with creeping woodbine;
The flower-pot laden with rose and bell blue,
The pink and the violet of various hue;

And last, but not least, are the fine happy girls,
Their cheeks flushed with health, their teeth white
as pearls,

And a lip that without affectation can smile,

A brow free from care, a heart free from guile.

E. H. B.

A LOOKING GLASS.

DEAR SIR.—When I was a boy, I can well remember how I used to be induced to wash my smutty face, by having a looking glass held before my eyes. For the same purpose, I have extracted the following picture of "a farmer," from the writings of that most eccentric and excellent writer, "Sam Slick," in the hopes that it any of your readers should happen to see any part of himself therein, that he will improve by the view. Here it is:

" That critter, when he built that wrack of a house, (they call 'em halt house here), intended to add as much more to it some of these days, and accordingly put his chimney outside, to serve the new part as well as the old. He has been to "busy" ever since, you see, to remove the barking put there the first fall, to keep the frost out of the cellar, and consequently it has rotted the sills off, and the house has fell away from the chimney, and he has to prop it up with that great stick of timber, to keep it from coming down on its knees altogether. All the winters are boarded up, but one, and that might as well be, for little light can penetrate them old hats and red flannel petticoats. Look at the farm; its broken back roof has let the gable ends fall in, where they stand staring at each other, as if they would like to come closer together (and no doubt they soon will), to consult what was best to be done to gain their standing in the world. Now look at the stock; there's your "improved short horns." Them dirty looking half-starved geese, and them drizzle-tailed fowls, that are so poor the foxes would be ashamed to steal them—that little lantern-jawed long leg'd, rabbit ear'd runt of a pig, that's so weak it can't curl its tail up—that old cow frame standing there with her eyes shut and looking for all the world as though she's contemplating her latter end—and with good

reason too), and that other reddish yellow, long-wooled varmint, with his hocks higher than his belly, that looks as if he had come to her funeral, and which, by way of distinction, his owner calls a horse—is all "the stock," I guess, that this farmer supports upon a hundred acres of as good natural soil as ever laid out door. Now, there's a specimen of "native stock." I reckon he'll migrate to a warmer climate soon, for you see while he was waiting to finish that thing you see the hen roosting on, that he calls a sled, he's had to burn up all the fence round the house, but there's no danger of cattle breaking into his fields, and his old muley has learnt how to sneak round among the neighbours' fields o' nights, lookin' for an open gate or bars, to snatch a mouthful, now and then. For if you was to mow that meadow with a razor and mow it with a fine tooth comb, you couldn't get enough to winter a grasshopper. 'Spose we drive up to the door, and have a word of chat with Nick Bradshaw, and see if he is as promising as outside appearances indicate.

Observing us from the only light of glass remaining in the window, Nick lifted the door and laying it aside, emerged from his kitchen, parlour, and smoke-house to reconnoitre. He was a tall, well-built, athletic man, of great personal strength and surprising activity, who looked like a careless good-natured fellow, fond of talking, and from the appearance of the little old black pipe which stuck in one corner of his mouth, equally so for smoking, and as he appeared to fancy us to be candidates, no doubt he was already enjoying in prospect the comforts of a neighbouring tap-room. Just look at him happy critter—his hat crown has lost the top out, and the rim hangs like the bail of a bucket. His trousers and jacket show clearly that he has had clothes of other colours in other days. The untanned moccasin, on one foot, which contrast with the old shoe on the other, shows him a friend to domestic manufactures: and his beard is no bad match for the woolly horse yender. See the vagrant independent sort of a look the critter has, with his hat on one side, and his hands in his breeches pockets, contemplating the beauties of his farm. You may talk about patience and fortitude, philosophy and christian resignation, and all that sort of thing till you are tired, but—ah, here he comes. Morning Mr. Bradshaw—how's all home to day? Right comfortable, (mark that—comfort in such a place), I give thanks—come, light and come in. I'm sorry can't feel your horse—but the fact is, can't too no use to try to raise no crops, late years, for body don't get half paid for their labour, these hard times. I raised a nice bunch of potatoes last year, and as I couldn't get nothing worth while for 'em in the fall, I thought I'd keep 'em till spring. But as the frost set in, while I was down town election time, the boys didn't fix up the old cellar door, and this infernal cold winter froze 'em all. It's them what you smell now, and I've just been telling the old woman that we must turn 'em and carry them out of the cellar. 'Fore long they'll make some of us sick enough—for there's no telling what may happen to a body late years. And if the next legislator don't do something for us, nobody knows but the whole country will starve, for it seems as though the land now-a-days won't raise nothing. It's actually run out. Why, I should think by the look of things round your neighbour Horton's, that his land produced pretty well. Why, yes—and it's a miracle too, how he gets it—for every body round here said, when he took up that tract, it was the poorest in the town. There are some folks that thinks he has dealings with the "black art," for't does seem as though the more he work'd his land, the better it got.

Now, here was a mystery—but an easy explanation of Mr. Slick soon solved the matter, at least to my mind. The fact is, says Mr. Slick, a great deal of this country is run out. And it wasn't for the lime, mash-mud, sea-weed, salt sand, and what not, they've got here in such quantities, and a few Hortons to apply it, the whole country would run out, and dwindle away to just such great, good-natured, good-for-nothing, do-nothing fellows, as this Nick Bradshaw, and his woolly horse, and woolless sheep, and cropless farm, and comfortless house, it indeed such a great wind rack of loose lumber, is worthy the name of a house.

Now, by way of contrast to all this, do you see that neat little cottage-looking house on yonder hummock, away to the right there, where you see those beautiful shade trees. The house is small, but it is a whole house. That's what I call about right—flanked on both sides by an orchard of best grafted fruit—a tidy flower garden in front, that the galls see to, and to a most grand sarce garden just over there, where it takes the wash of the buildings, nicely sheltered by that bunch of shrubbery. Then see them everlasting big barns—and, by gosh, there goes fourteen dairy cows—as sleek as moles. Them flowers, honeysuckles, and rose bushes, shows what sort of a family lives there, just as plain as straws show which way the wind blows.

Them galls an't tamally racing round to quiltin' and huskin' frolics, their feet exposed in thin slips to the mud, and their honour to a thinner protection. No, no, take my word for it, when you see galls busy about such things to home, they are what our old minister used to call "right minded." Such things keep them busy, and when folks are busy about their own business, they've no time to get into mischief. It keeps them healthy, too, and as cheerful as larks. I've a mind we'll light here, and view this citizen's improvements, and we shall be welcomed to good substantial breakfast, that would be worthy to be taken as a pattern by any farmer's wife in America.

We were met at the door by Mr. Horton, who greeted my friend, Slick, with the warm salutation of an old acquaintance, and expressed the satisfaction of one habitually hospitable, for the honour of my visit. He was a plain, healthy, intelligent looking man, about fifty, dressed as a farmer should be, with the stamp of "Homespun" legible upon every garment, not forgetting a very handsome silk handkerchief, the work throughout of his eldest daughter. The room into which we were ushered, bore the same stamp of neatness and comfort that the outside appearance indicated.

A substantial home-made carpet covered the floor, and a well-filled book-case and writing-desk, were in the right place, among the contents of which I observed several agricultural periodicals. I was particularly struck with the scrupulously neat and appropriate attire of the wife and two intelligent, interesting daughters, that were busily engaged in the morning operations of the dairy. After partaking of an excellent substantial breakfast, Mr. Horton invited us to walk over his farm, which, though small, was every part in such a fine state of cultivation, that he did not express a fear of "starving, unless the legislature did something to keep the land from running out."

We bade adieu to this happy family, and proceeded on our journey fully impressed with the contrast between a good and a bad farmer, and for my own part, perfectly satisfied with the manner that Mr. Slick had taken to impress it indelibly upon my own mind.

Mr. Slick seemed wrapped in contemplation of the scenes of the morning for a long time. At length he broke forth in one of his happy

strains. "The bane of this country, 'Squire, and indeed of all America, is having too much land—they run over more ground than they cultivate, and crop the land year after year, without manure, till it is no wonder that 'it's run out.' A very large portion of land in America has been "run out," by repeated grain crops and bad husbandry, until a great portion of this great country is in a fair way to be ruined. The two Carolinas and Virginny are covered with places that are "run out," and are given up as ruined, and there are a plaguy site too many such places all over New England, and a great many other States. We hav'nt the surplus of wheat that we used to have in the United States, and it'll never be so plenty while there are so many Nick Bradshaws in the country.

The fact is, 'Squire, education is ducedly neglected. True, we have a site of schools and colleges, but they an't of the right kind. That same Nick Bradshaw has been clean through one on 'em, and 'twas there that he learnt that infarnal lazy habit of drinking and smoking, that has been the ruin of him ever since. I would'nt give an old fashioned swing tail clock to have my son go to college where he could'nt work enough to am his own living, and learn how to work it right tu.

It actually frightens me when I think how the land is worked and skinned, till they take the gizzard out on't, when it might be growing better every day. Thousands of acres every year are turned into barrens, while an everlasting stream of our folks are streaking it off "to the new country," where about half on 'em after wading about among the tadpoles, to catch eat fish enough to live on a year or two, actually shake themselves to death with that everlasting cuss of all new countries, the fever and agur. It's a melancholy fact, 'Squire, though our people don't seem to be sensible of it, and you nor I may not live to see it, but if this awful robbin' of posterity goes on for another hundred years, as it has for the last, among the farmers, we'll be a nation of paupers. Talk about the legislature doing something, I'll tell you what I'd have them do. Paint a great parcel of guide boards, and nail them up over every legislature, church and school house door in America, with these words on 'em in great letters—"The best land in America, by constant cropping without manuring, will run out." And I'd have 'em, also, provide means to larn every child how to read it, 'cause it's no use to try to larn the old ones—they're to sot in their ways. They are on the constant stretch with the land they have, and all the time trying to git more, without improving any on't. Yes, yes, yes, *tu much land* is the ruin of us all."

Although you will find a thousand more good things among the writings of "The Clock-maker," I hope you will not look for a *literal* copy of the foregoing. And if ever this meets the eye of the writer of the "Sayings and Doings of Sam Slick," I beg him to excuse me for the liberty I have taken with his own language.

I remain your Agricultural friend,
—*Alb. Cult.* SOLON ROBINSON.

PRINCIPAL AND INTEREST. — A gentleman, eminent for his wit, being hard pressed by one of his impatient creditors for the principal and interest of a debt, long incurred, made the following facetious reply to a letter received:

"Dear Sir—In answer to your obliging favor, I must take the liberty to inform you, that, at present, it is not my interest to pay the principal, neither is it my principle to pay the interest.

I am, dear Sir, &c."

A FEW PLAIN OBSERVATIONS ON POLITENESS.

A refined species of civility is sometimes expressed by the term *politeness*, which is an indication of good breeding or good manners, and may be defined as that mode of behaviour which not only gives no offence, but which affords agreeable sensations to our fellow creatures. In our intercourse with the world, this species of civility is imperative. We possess no right to give offence, by language or actions, to others; and we are bound to conduct ourselves agreeable to the reasonable and set rules of society. Some severe writers on morals have contounded *politeness* with *insincerity*. They seem to imagine that the act of speaking gracefully to another, is necessarily mere guimace, or an empty flourish signifying nothing. In many instances, with insincere people, this may be the case, but it is not so with those of well-regulated minds. It is always better to speak politely, than with extreme propriety and delicacy, than bluntly, coarsely, or impertinently. We say, cultivate *politeness* of manners by all means, for it is *refined civility*, and will spare both ourselves and others much unnecessary pain.

Civilized society has in the course of time instituted certain rules in the code of politeness, which, though of little actual value, it is every one's duty to learn, because, by knowing and acting upon them, we can make life glide on much more smoothly and pleasantly than if we remained in ignorance of them. These rules are sometimes called the rules of *etiquette*. We shall here mention a few of the more important of these social regulations:—

1. *Honor to the female sex*—Women are physically weaker than men. They are unable to defend themselves from insult or injury, and it would be considered indelicate for them to do so, even if they possessed the power. For these and other reasons, it is only simple politeness and a sign of good sense to render any little service to woman, to assist them when they appear in any difficulty, to speak respectfully of them and to them, and to give them honor wherever it can be reasonably required. It will be observed, therefore, in what is called good society, that women are treated with exceeding delicacy and deference; they are offered the best seat, or the only seat if there be no other; allowed to walk next the wall, or at the farthest point from danger, in the street; never rudely jostled against in a crowded thoroughfare; and are always parted from with a respectful bow. All this is considered essential in good manners, and attention to it will not in the smallest degree degrade any man in the opinion of the world. At the same time, as respects the women who receive these attentions, it is expected that they will not "give themselves foolish airs," or presume on the forbearance and kindness of the stronger sex. In fact, no female will do so who is acquainted with good manners, or wishes to avoid being despised.

2. *General courtesy and respect*.—It is incumbent on every one to be courteous or respectful in his intercourse with neighbors, acquaintances, or with the public generally. To interiors, speak kindly and considerately, so as to relieve them from any feeling of being beneath you in circumstances; to equals, be plain and unaffected in manner; and to superiors, show becoming respect, without, however, descending to subservience or meanness. In short, act a manly, courteous, and unobsequious part, in all the situations in life in which you may be placed. Society, for good and sufficient reasons, which it is needless here to explain, has ordained certain modes of address, and certain exterior signs of respectfulness, which it behoves us to support and personally attend to. In eastern countries, as of old, it is the custom to uncover the feet and to sit down, in token of respect on going into the presence of kings, or on entering a religious office or private dwelling. In our country it is quite the reverse. It is an established mark of respect to uncover the head and to stand, in the situations which we have mentioned, and to this point of etiquette we are bound to adhere. We must not, from any crotchet of our own, violate the rules or customs which society sanctions and enjoys, so long as these rules and customs are not opposed to reason and sound morals, and only refer to such trivial arrangements as taking of our

hat, making a bow, shaking hands, or other matters equally unworthy of deliberate consideration. None but persons of a silly, eccentric turn of mind, think of disputing about these trifles. On the same principle, give every one the title, which, by law or courtesy, he usually receives.

3. *Personal behaviour*.—A well-bred man is always known by the perfect ease and tranquility of his manner. These are points to be carefully cultivated. Acquire, if possible, an easy confidence in speaking, so as never to appear abashed or confused, taking care, however, not to fall into the opposite error of forwardness or presumption. Persons moving in the highest circles of society never allow themselves to appear disturbed or vexed, whatever occurs to annoy them. Perhaps there may be an affectation of indifference in this; still their conduct is worth admiring, for every thing like fidgetiness or boisterousness of manner is disagreeable to all who witness it.

Carefully avoid the following things in personal behavior:—Loose and harsh speaking; making noises in eating or drinking; leaning awkwardly when sitting; rattling with knives and forks at the table; starting up suddenly, and going unceremoniously out of the room; taking anything from you with affected contempt or indifference; taking anything without thanking the giver; standing in the way when there is scarcely room to pass; going before any one who is looking at a picture or any other object; pushing against any one without begging pardon for the unintentional rudeness; taking possession of a seat in a coach, theatre, or place of public meeting, which you are informed belongs to another; intruding your opinions where they are not wanted, or where they would give offence; leaving acquaintances in the street, or a private company, without bidding them good-bye, or at least making a bow to express a kindly farewell; slapping any one familiarly on the shoulder or arm; interrupting any one who is conversing with you; telling long and tedious stories; whispering in company; making remarks on the dress of those about you, or upon things in the room, flatly contradicting any one, instead of saying "I rather think it is otherwise," "I am afraid you are mistaken," &c.; using slang expressions, or words of a foreign language; acquiring a habit of saying "says she," "says he," "you know," "you understand," &c.; helping yourself at meals without first asking if you may not assist others to something which they would like; picking your teeth with your fork, or with your finger; scratching or touching your head; pairing or cleaning your nails before company, mentioning the price of any article of food or drink which you are offering to guests; asking questions or alluding to subjects which may give pain to those you address; neglecting to answer letters. It would be easy to enumerate many other things which should be avoided as savouring of bad manners, but these will be sufficient to indicate the principle of politeness, and if that be understood, there can be no difficulty in knowing how to act with delicacy and discretion in all the concerns of life.

4. *Gentility and vulgarity*.—By attention to the rules of good breeding, such as we have just alluded to, the poorest man will be entitled to the character of a gentleman, and by inattention to them, the most wealthy individual will be essentially vulgar. Vulgarity signifies coarseness or indelicacy of manner, and is not necessarily associated with poverty or lowliness of condition. Thus, an operative artisan may be a gentleman, and worthy of our particular esteem; while an opulent merchant may be only a vulgar clown, with whom it is impossible to be on terms of friendly intercourse. Vulgarity of manner is often exhibited, in its most offensive form, by persons originally of humble birth and breeding who have risen to wealth by the force of fortuitous circumstances. It is not uncommon to hear persons of this class, particularly ladies, speaking of "my coach," "my house," "my goodness," "my family," "my servant," "my furniture," and so forth; all of which is *pure vulgarity*; and indicates a low tone of breeding, and weak understanding on the speaker. A man or woman of refined taste, never alludes to matters of dress, domestic convenience, or things strictly personal, and rather endeavour to direct conversation into those channels in which all may harmoniously join.

EMIGRATION.

It is our intention to devote, at least, two pages of each number of vol. 3, to the subject of emigration. We have not been able to prepare much matter for this department, for the present number, nor will we be prepared to do the subject that justice that it merits, until the commencement of the next volume,—our time is so completely occupied, that we have not performed some of the pledges that have been made, but our friends will please remember that our work is yet in its infancy, and only requires a little nursing to make, what its most zealous supporters desire—the most practical agricultural journal on this continent. We believe it possible to make the *Cultivator* so useful, that no one in the province would be the loser, by advancing the small amount asked for the work. Our earnest desire for the welfare of this highly favoured portion of the British Empire, shall be breathed in every paragraph we pen for the rural population of these colonies. Nothing would give us greater delight than to see every department of useful business carried on in a spirited manner. All this and much more may be realized if all classes of the population would unite, and in harmony and good will towards each other, endeavour, by every legitimate means, to promote the prosperity of the country.

Steps are about being taken by a number of gentlemen of influence, in the Home District, which will have a powerful tendency to dissipate the lowering cloud, which at present enshrouds the spirits of the best farmers of the country. We hope other districts will put shoulder to the wheel. If they remain quiet, and allow the Home District to do all the work, the consequence will be, that the enterprising portion of the newly arrived emigrants will settle among *kindled spirits*.

The Local Clubs, and District Board of Agriculture which will be organized in the course of the coming winter, will unquestionably prove a powerful engine, in showing off the capability of the Home District, affording a field for the safe investment of capital and skill in the several branches of agriculture and mechanism, with the greatest possible effect.

The subject of emigration will also engage the attention of the associations which will shortly be put into operation,—we anticipate the most important results from these institutions, and would earnestly recommend each of our readers to set about the work in good earnest, and organize a local club in each township, or populous settlement.

If the discussions be entered into with a proper spirit, they will be productive of a vast amount of good. The fact that a general depression of spirits pervades the land, should be sufficient stimulus, of itself, for a combination of effort, to bring into requisition every reasonable means for the production of a more healthy state of things.

When the labouring classes from the agricultural population of Great Britain arrive on our shores, the first thing they have in view is the

purchase of a farm. The little ready money that they bring with them is often injudiciously expended in the purchase of a lot of timbered land, which they have neither means nor knowledge sufficient to clear. Scores become discouraged at the difficulties and hardships which they have to surmount, in order even to subsist,—and frequently, are they ready to give up all their cherished notions of future wealth and happiness, as lost, and at this critical moment, their situation is oftentimes truly pitiable. The cause producing this effect, must not be attributed to any defect of the soil and climate of the country, but to the inadequacy of the necessary means to bring into cultivation its natural fertile lands.

In future numbers of this work, we shall endeavour to illustrate this subject by adducing practical facts, that have come under our notice, which we trust will be highly conducive to the well-being of thousands of the industrious classes, who select this Colony, as a home for themselves and their children.

We need scarcely inform any rational man that, the occupation of a backwoods-man, is one of the most rugged character, and requires a hardness of constitution, and a persevering resolution, on the part of the individual who engages in the pursuit.

About two years since we had an interview with a respectable looking farmer who resides in the township of *Madoc* in the Victoria District, whose history will illustrate the character of the hardships of a backwoods-man, and also the beneficial results produced by an extraordinary effort on his part. The person in question, landed at Toronto, in the summer of 1831, with a wife and six small children—he was entitled to a hundred acres of land, for services rendered to the Government, which he drew in the township of *Madoc*, about forty miles North East from *Belleville*. The first year, he engaged himself with a farmer, which, after supporting his family, left a trifling balance in his hands—he erected a *shanty* on his *bush farm*, being a distance of five miles from any settlement, and planted his family, in this thicket of wood, without any means to subsist upon for the coming winter further than what a few dollars would purchase, together with the charities of the older settlers. The first winter and summer they lived entirely upon potatoes and salt, which had to be carried on their backs for many miles. By dint of industry, four acres were chopped and the ground completely cleared for spring crops, which consisted of a *patch* of spring wheat, potatoes, Indian corn, and garden vegetables. The following summer other four acres were cleared, which were sowed with autumn wheat.

The produce of the first five acres gave an abundant supply of bread and vegetable for the whole family, which when contrasted with the previous year's fare, caused the inmates of the log cabin to bless and adore the ALL-wise dispenser of mercies. The second winter a still greater number of acres were chopped, a portion of which were sown with spring crops, and the remainder prepared for

autumn wheat. By rigid economy, and almost total abstinence from every luxury of life, and the few dollars earned in the oldest settlements in the harvest field, the farmer was enabled to purchase two cows, and a few small pigs, the keep of which cost him comparatively nothing. In a few years, two of his boys were enabled to be of great service to him in chopping and clearing his land, and when we saw him, he had seventy acres cleared, a large portion of which was under crop. He informed us that he had three horses, one yoke of oxen, six cows, a number of sheep and pigs, and could say without boasting, that he was free from debt. He also added, that his family could read and write, which was taught them by their mother,—and that every lot was located and settled within a number of miles of his farm, and that a school was well supported within a short distance of his residence.

We frequently hear men complain of hardships, but the fault, in most cases rests with themselves. If the *Madoc* farmer had quietly contented himself with folding his arms, and finding fault with the hardships which he had to forego, he would at this time been employed on some of the public works, with a large uneducated needy family, and would have entailed beggary on himself and dependants.

We will, for the present, merely bring another character on the carpet, whose laudable exertions deserve the highest commendation.

In 1831, a Yorkshire labourer emigrated to this colony, who had to sell a part of his clothes to pay his passage to Toronto. He hired with a farmer in the township of *Vaughan*, for £30 per annum, including board and lodging. At the expiration of two years, he had £50. He purchased a bush lot containing 100 acres, for which he paid his first installment, about £15—he erected a shanty on the lot, and employed a man for £2 per month. They chopped 30 acres the first winter, the whole of which was sowed with fall wheat. The following summer the crop looked beautiful, he sold his right to the farm for a very considerable price, which placed him in funds to purchase 200 acres, the first installment on which he paid in advance. He purchased two yoke of oxen, a quantity of provisions, and employed four strong handed labouring men, all of whom lived in the shanty with our hero. Upwards of 50 acres of land were chopped, cleared, fenced, and sown with wheat. A bountiful crop was harvested. A log house and barn were built, and made comfortable. This farm was sold to a Scotch farmer, who paid a full price for the improvements, which, with the profits of the wheat crop, added to the funds of our backwoodsman to such a degree that he felt himself prepared to unfurl his canvass. He persevered in this successful course for a number of years, and he seldom raised two crops upon the same farm. In 1840, he sowed upwards of 80 acres of wheat on new land. He has lately retired on a respectable farm, with sufficient money out on interest to warrant his future independence for life. He is computed to be worth £1500.

In this department of our journal we shall frequently bring forward similar cases to those we have just related, and shall endeavour to obtain license from the parties themselves to mention names and other circumstances, by which means an unlimited credence will be attached to the facts and cases we illustrate.

It undoubtedly speaks volumes for a country which affords ample means of investing capital and producing wealth, at a time when the markets of most of the civilized world is overstocked with capital, and the staple products of the soil and manufactures. Canada abounds with these means, and only requires an influx of capital and skill to make it a most desirable country to live in.

GYPSUM OR PLASTER.

Gypsum is the third principal salt of lime which exerts a powerful influence on plants, and is one of 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 effects on plants; and these opinions can scarcely be said to be harmonized, 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. Chaptal referred its power to its stimulating agency on plants, produced by its action when dissolved in water. Liebig ascribes its value to its giving a fixed condition to the nitrogen or ammonia which is brought into the soil, and which is indispensable for the nutrition of plants. Dana, to the action of the lime and the 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 geline, 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 Mr. 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 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 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 in securing and promoting 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.—*Alb. Cultivator.*

THE BENEFITS OF INDUSTRY.

There are many persons who regard every species of labour as an evil. Children are often unhappy, because they must study in order to acquire knowledge; and men and women sometimes complain, because they must sow before they can reap. To all such persons I would tell the allegory, which may suggest the lesson, that industry is a blessing and idleness a curse:

"There was once, in the city of Bagdad, a little boy who was poor, and obliged to earn his daily bread by rearing flowers in a small garden. As the price of flowers in that luxurious climate is extremely low he was compelled to be very industrious in order to obtain necessary food and clothing. But still he had good health, and ate his meal with high relish and satisfaction. But this was not his greatest pleasure; his flowers were a perpetual source of enjoyment. They were his flowers; he planted them, he watered them, pruned, and nurtured them. Besides all this, they were the source of his livelihood. They gave him bread, shelter and raiment. He therefore loved them as if they were his companions. He saw them spring out of the ground with pleasure; he watched the budding leaves and unfolding flowers with delight."

But at length discontent sprung up in his mind, in the evening of a hot day, he sat down in his garden and began to murmur. "I wish," he said, "that flowers would plant, prune, and tend themselves. I am tired of this incessant toil. Would that some good genius would step in, and bring me flowers already made, so that I might be saved all this trouble?" Scarcely had he uttered this thought, when a beautiful being stood before him, and said, "You called me, what do you desire?" "I am weary of my employment," said the boy. "I live by cultivating flowers. I am obliged to toil day by day, with unceasing industry, and I am only able to obtain my bread. If I mistake not you are a kind and powerful genius, who can if you will give me flowers, and save me all this toil, and save me all this trouble."

"Here!" said the genius, holding forth a fan of feathers, "take this; wave it over the earth and the brightest blossoms of Cashmere will spring up at your bidding." Saying this the spirit departed.

The boy received the charmed fan with great delight, and waved it over one of his flower-pots. A bud immediately shot up through the soil, gradually unfolding itself, and in a few moments a beautiful moss-rose, blooming and fragrant, stood before him! I need not describe the transports of the little gardener. He had now no labour to perform; a few sweeps of his fan brought him all the flowers he needed. He, therefore, spent his time in luxurious idleness.

Things went on very well for a fortnight. But now a different kind of weariness began to creep over him. He lost his interest, like-

wise, in the flowers; he saw no beauty in their bloom; their odour became sickening. The poor boy was unhappy, and he began to murmur. "I wish," said he, "the genius would come back and take away this foolish fan." In a moment the bright being was standing by his side.

"Here," said the boy, handing forth the fan, "take back the charm you gave me! forgive me sweet genius, but I was mistaken. The weariness of idleness is far worse than the weariness of industry. I loved the flowers which were produced by my own skill and care; but things which cost nothing are worth nothing. Take back the charm, and leave me to that humble happiness which my own industry can secure, but which your potent spell would chase away."

TO PRESERVE QUINCES

Quinces, if very ripe, are best preserved in the following manner: Pare and cut them in slices, an inch thick—take out all the cores carefully so as to have the slices in the form of a ring. Allow a pound of nice white sugar for each pound of fruit—dissolve it in cold water, having a quart of the latter to a pound of sugar, then put in the sliced quinces, and let them soak in it ten or twelve hours. Put them into a preserving kettle, and put it on a moderate fire—cover them over, and let the quinces boil gently—there should be more than enough syrup to cover the quinces. When a broom splinter will go through them easily, take them from the fire, and turn them out. In the course of a week, turn the syrup from them, and boil it down, so that there will be just enough to cover the fruit. When not very ripe, pare and cut the quinces either in rings or quarters, take out the cores and boil them in clear water, till they begin to grow tender—take them up, and strain the water in which they are boiled—put in either brown or white sugar—add a little cold water. When lukewarm, put in the whites of two eggs and clarify it—let it cool, then put in the quinces, and boil them slowly for half an hour. Keep them covered over while boiling, if you wish to have them of a light colour. Turn them out into pots as soon as preserved, and set them in a cool place. Look at them in the course of a week to see if they have fermented—if so, turn the syrup from them, boil it, and turn it back while hot. The parings and the cores of the quinces can be used for marmalade, with a few whole ones. Some people prefer to preserve the quinces with the cores, but the syrup will not look clear.

The following is a cheap method of preserving quinces, and answers very well for common use.—Pare, halve, and take out the cores of the quinces, and boil the parings in new cider till soft. Strain the cider, and for five pounds of quinces put in a pound of brown sugar; a quart of molasses, the beaten white of an egg, clarify it, then put in the quinces. There should be rather more than enough cider to cover the quinces, as it wastes a good deal while the quinces are boiling. The peel of an orange cut in small pieces, and boiled with them, gives the quinces a fine flavour.—*Gen. Farmer.*

IMAGINATION.—Rightly directed, wisely used imagination is the greatest gift and blessing of intellectual man. It raises his tastes, softens his feelings, purifies his desires, ennobles his nature, dignifies his life, and tranquillizes his death! To him who has imagination well directed, the whole universe and all its vicissitudes are but one instrument of eternal music; and the hand of God producing infinite harmony at every touch.

BELGIAN HUSBANDRY.

In no part of the world has the cultivation of the soil attained greater perfection, than in Belgium; and the numbers of a work devoted to a description of the husbandry of that country, and the manner in which, by persevering industry, its barren sands have been converted into the most fertile of soils, are not the least valuable of the series published by the London Society.

Farmers in this country, speak of the impolicy of extensive outlays in improving their farms, "It will not pay the expense," is the objection most frequently made, and one which is the most forcible, in reply to those who urge upon them systems, for the permanent melioration of their soils. We have sometimes been disposed to consider this feeling of regard to immediate expense or profit, more as the natural result of that restlessness of character, which is said to belong to us as people, and which leads us to suppose, with reason, that what will not pay now may be lost to us for ever, as from our known migratory propensities, it is scarcely probable our lands will remain in our hands, or those of our children, for any considerable time, rather than of any disinclination to encounter the labor which an improved husbandry requires. The benefits of a good system of farming, or the evils of a defective one, can only be fully seen and appreciated in a considerable term of years; on such lands as the greater part of those in this country are, when brought under cultivation, what may be called the *skinning or scourging system*, in which, repeated crops, with little labour and no manuring, are taken off, may be the most profitable for the time, although fatal to the soil and the prosperity of the farmer in the long run; but when the permanent value and productiveness of lands are taken into consideration—when it is remembered that it is much easier to keep lands in heart, than to restore them when reduced to sterility; and that the eventual agricultural prosperity of a country is dependant on a correct system of management, the importance of selecting the best models, and conducting our farming operations with reference to future results, as well as present profits, becomes perfectly evident.

To illustrate the effects of the two systems of farming, or rather, to show the results of the improved one, as compared with that generally practiced with us, we give a few extracts from the papers on Belgian farming; and the first is a description of a farm of one hundred and forty acres on the river Lys near Courmay.

"Of this farm, near twenty acres are in fine meadows along the river, occasionally flooded in winter, but not irrigated. About ten acres are rich heavy land, adjoining the meadows, in which beans and wheat thrive well: all the remainder, about one hundred and six acres, lies in an oblong form, bounded by a hedge row; at one corner of which, nearest the river, stand the farm buildings. A road or path, six feet wide runs through the middle of the field and the road or path that leads to the farm-yard skirts one end of it. The soil of this large field, is a rich, light loam, which lies over a substratum of clay, but at such a depth as to be perfectly sound and dry: it is not very fertile in its own nature, but has been rendered so by many years of an improving husbandry; every part of the land has been repeatedly trenched and stirred *two or three feet deep*, and the immense quantity of manure, chiefly liquid, put on year after year, has converted the whole into a rich mould; the strength and vigor of the crops bear witness to the goodness of the husbandry.

"As we walked along the path, which is just wide enough to admit the wheels of a cart, the whole produce might be seen at once. The flax had been pulled, and remained stacked on the ground; the colza (cole, or rapeseed) had been beaten out, but the stems remained where they had been cut; there were fifteen acres of most beautiful flax, of a bright straw color, and the stems a yard long; this, besides the seed, was worth in the stack, from twenty-five to thirty pounds sterling, per acre; twelve acres of colza had produced about four hundred bushels of seed; eighteen acres of oats looked so promising, that they could not be set at less than seventy bushels per acre; eighteen acres of wheat, which stood well, with short, plump ears, were estimated at forty bushels

per acre; eighteen acres of rye, with straw six feet high, would probably produce rather more than the wheat. There were six acres of white poppy, of which every plant was strong and upright, and the produce of which was estimated from twenty to twenty-three bushels of seed per acre; six acres were in potatoes, expected to produce at least twenty-two hundred bushels; about an acre was in carrots, which looked fine and large; twelve acres were in clover, nearly the whole of which was cut green, as food for horses and cows, and produced three good cuts in a year; the ten acres of heavy land were partly in beans, and partly in wheat; and the stock kept on this farm consisted of twenty-seven cows in milk, five or six heifers, nine horses and three colts."

CURE FOR A FOUNDERED HORSE.

I send you the following prescription, which, you may give a place in your useful paper, if you think it will be of any advantage to planters and travellers.

As soon as you find your horse is foundered, bleed him in the next in proportion to the greatness of the founder. In extreme cases, you may bleed him as long as he can stand up. Then draw his head up, as common in drenching, and with a spoon put far back on his tongue strong salt, until you get him to swallow our pint. Be careful not to let him drink too much. Then anoint around the edges of his hoofs with spirits of turpentine, and your horse will be well in one hour.

A founder pervades every part of the system of a horse. The phlegms arrest it from the blood; the salt arrests it from the stomach and bowels; and the spirits arrest it from the feet and the limbs.

I once rode a hired horse 99 miles in two days, returning him at night the second day; and his owner would not have known that he had been foundered if I had not told him, and his founder was one of the deepest kinds.

I once, in a travel of 700 miles, foundered my horse three times, and I do not think that my journey was retarded more than one day by the misfortune, having in all the cases observed and practised the above prescription. I have known a foundered horse turned in at night on green feed; in the morning he would be well, having been purged by the green feed. All founders must be attended to immediately.

—South-western Farmer.

A WORD FOR THE BOYS.

Well, boys—I have taken my pen again to say a few words more about the hot days and the cold days, and the like—As I said before, there is no denying but there are some things of that kind not quite so clever. But then there are other things to be thought of at the same time. Probably some of you are thinking what a fine thing it would be to be a merchant, or to get an education so as to be a Lawyer, or a Doctor, or a Minister; you think it would be so nice to be dressed up clean all the time, and not have to work. Well, it will in all probability always be necessary that there should be some men in all these vocations. But you should recollect that although they do not require so much hard labor with their hands as farming, they all have their troubles, their perplexities and their vexations—in fact their *hot days* and their *cold days*. Very possible you might find one of those employments more pleasant during your term of apprenticeship, than the labors of the field. That, however, would be but a brief period, soon past and gone, and then comes the work of life. Yes, the work, though not perhaps of the hands. And only think; those vocations, at least the two first, are already crowded beyond excess. Ten to one probably more than the good of the community requires, and swarms every year still flocking in. Among them are undoubtedly some of our most respectable, honorable and useful men, and some of them get rich. But among the great mass their avarice, or their extravagance, or their necessities, together with the excessive competition that exists, too frequently leads to practices of mean-

ness, impudence, and knavery, and any amount of wealth, which may be in some cases accumulated by such despicable means, should be considered as too dearly bought.

Besides, there are multitudes who, failing in their great object of getting rich, continue to live and pass along through life, "nobody knows how"—in short these two vocations, as they are managed at this day, are certainly among the last into which I should wish a son of mine to enter. If you should have any doubts on this subject, just make inquiry of any *honest* man in either branch of business, (possibly you may find one) and ask his opinion.

As to manufactures and the mechanic arts, if a boy has any particular inclination for any one of them, I would by no means dissuade him from learning it. They seem, however, to be crowded although to a less extent, than some of the pursuits above mentioned. But I would say let him go with a full determination to spend all his leisure hours in study, and to obtain such a knowledge of the sciences as will enable him to stand in the very first ranks of his business, whatever it may be.

And now, boys, at least all you who have an itching to be gentlemen, or, to speak more correctly, perhaps, to live without work, I would advise you and urge you, before making up your minds to quit that dirty, old-fashioned business call'd farming, to think long and seriously upon the subject. This idea of getting rid of hard work, and the hot days and the cold days, is all moonshine, there is no reality in it. You will find them wherever you go, into whatever pursuit you enter.

These are some of the reasons against going into other pursuits, which have come into my mind, and I think they are pretty strong ones, which you who have been brought up to farming, ought well to consider. But they are by no means all the things that are to be taken into account: I believe that it may be easily shown that these hardships which are sometimes to be met with in farming, may be, in some measure, avoided, and that even when you are obliged to come right up and take them by the horns, they are not so *very bad*, as they seem to be a little farther off. And that after all you do not in reality, care much about them. And then there are the innumerable sources of the purest and most substantial pleasures within reach of the intelligent farmer, and which he has but to open his eyes, to enjoy, which are opened in so great provision to no other men on the face of the earth—I mean the pleasures which would flow from a knowledge of the sciences to which I directed your attention in my former communication. Of them it may be truly said, "they are not hidden from thee, neither are they far off, neither are they beyond the sea, that thou shouldst say, who shall go over the sea and bring them unto us but they are very nigh unto thee." Much more should be said on this part of the subject than my present limits will permit, perhaps, if time and opportunity will permit, I may call your attention to it at some future time.

UNCLE JONATHAN.

Sept. 5, 1843.

COST OF A LAW-SUIT.—The spirit of litigation was, perhaps, never carried to a greater extent than in a cause between two potters, in England, for the sum of two pounds nine shillings and a penny. After being in chancery for eleven years, it was put an end to by arbitrators, who determined that the complainant filed his bill without any cause, and that he was indebted to the defendant; at the same time, the sum for which he had brought the action. This they awarded him to pay, with one thousand guineas cost.

RATHER SEVERE.—"If I give you an office," said a man in power to an applicant for a place, "will you aid the party in carrying out its principles?"

"I should most willingly," said the other, "but I don't believe the party has got any principles."

MAN'S INGRATITUDE.

Show him, at the outset of your acquaintance, a little courtesy—offer him your opera-glass or your snuff-box—write him what is called a civil note when there is no absolute necessity for doing so, and he will trumpet your praises as one of the most gracious of mankind. Proceed from small civilities to essential benefits, heap favour upon favour on him; go out of your way to evince an anxiety for the promotion of his interests, the gratification of his desires, extend your disinterested kindness from himself to his family; get an appointment for his eldest boy, and reconcile a high family to a match with his daughter; invent a new hair-dye expressly to accommodate his wife, and lose a guinea a night to him at whist, the whole season round; bind him more and more tightly in obligations to you, and hear him proclaim you, nine times a day, for nine years, the best friend he ever had in the world—the most generous of mortals, the noblest of benefactors; and then, at the very moment when he is your own for ever only just refuse to lend him your gun, or your horse—or tell him that you could not think of writing to the Review to solicit a puff of his new pamphlet—that's all! How, in such a case will the grateful fellow, to whom you have rendered the ninety-nine good turns, turn round upon you? He will teach you, in no time, a curious lesson—that it takes years to confer obligations, but only moments to forget them. Why, he will undertake to forget, on the very spot, all that you have done for him—all that he has said of you. He will, at the shortest notice, recollect nothing concerning you but your refusal to oblige him in the very trifling matter wherein he had calculated on your assistance. You dragged him out of the river once, saving his life at the risk of your own; you lent him a thousand pounds; you introduced him to all the connections in which he finds the best charms of society. Does he remember one of these little incidents? No; he only recollects that you yesterday refused to buy a share or two in the crazy speculation you were so rashly concerned in.—*Ainsworth's Magazine.*

WARNING TO MOTHERS

We copy from the *Bangor Whig* the following excellent suggestions, which we hope will not be disregarded:—

"Cold weather is approaching, and the sitting-room fire has already become necessary in the morning and evening. It is time to think about the appropriate clothing for children and infants. Let the mother see to it, that her infant is not exposed to the pains and dangers of disease by following fashions set by those whose vanity outruns their judgment, or whose ignorance makes sacrifice of their offspring. Let the round plump arms and delicate breasts of children be well covered with comfortable clothing. Let the little ones who can trot about the house be clad in woollen garments, to shield them from the cold and as a protection against fire. We have been connected with the public press, more or less, for nine years, and during that time not a year has passed but we have recorded more or less deaths of children by their clothes taking fire. What a warning is this to mothers who love their children—what a sacrifice of life is annually made to neglect in clothing children!"

IMPROVEMENT.

Every thing in life, dependent for its exercise upon intelligence and skill, is susceptible of improvement; and, for aught that human sagacity can determine, of indefinite improvement. Who in respect to any art or science is competent to say, there is the end. It is only

they who, through ignorance or indolence, or prejudice or obstinacy, choose to remain at the bottom of the hill, who see nothing beyond them, and pretend that they can go no farther. But those brave minds, who have struggled up the first summits, rugged and difficult as the ascent may have been, see a wide prospect and an expanding horizon before them. It is with them as with the traveller in the Alps; other and loftier summits, as he ascends, present themselves to his view, showing their bright peaks glistening in the sunbeams, stimulating his generous ambition with an irresistible impulse, and inviting him onward to bolder efforts and nobler triumphs. Agriculture then admits of improvement. Its improvement depends on the intelligence and skill which are brought to bear upon it. There is no art or pursuit, where intelligence and skill find more scope for exercise, or more occasion to call them out and to tax them to the extent of their power.

MOTHERS AND DAUGHTERS.

It was a judicious resolution of a father, as well as a most pleasing compliment to his wife, when, on being asked by a friend, what he intended to do with his girls, he replied: "I intend to apprentice them all to their excellent mother, that they may learn the art of improving time; and be fitted to become like her, wives, mothers, heads of families, and useful members of society." Equally just, but bitterly painful was the remark of the unhappy husband of a vain, thoughtless, dressy slattern. "It is hard to say it, but if my girls are to have a chance of growing up good for any thing, they must be sent out of the way of their mother's example."

YOUNG MEN.

HELP YOURSELVES.—"Providence," we are told, "helps them who help themselves." A true proverb, and worthy to be stamped on every heart. Passing on through life, you will find many a stream that will cross your path; but don't sit down and mourn. If you can't wade across, throw in stones and stand upon, or bring forth a dead tree from the forest, and you will soon make a bridge and be safe on the opposite side. To-day you are opposed in your project. Don't stop—don't go back—meet the opposer—persevere and you will conquer—Providence will assist you. If you fail in business, come out from under the toad stool of despondency and try again. Zounds! if you don't help yourself and persevere you will do nothing, and be punched at by every beggar and pauper on crutches who passes along. Your friends have gone—bury them—but don't linger in the church-yard mourning because they are gone and you may go next. Up with you—throw off your tears and go to work and be happy—'tis the only way.

In fine, help yourselves in all places, at all times, and Providence will assist you, smile on you, and make life a scene of active enjoyment and real pleasure.—*Germantown Telegraph.*

A WIFE.—Dr. Franklin recommends a young man in the choice of a wife to select her from a bunch, giving as his reason, that when there are many daughters, they improve each other, and from emulation, acquire more accomplishments and know more, and do more than a single child spoiled by parental fondness. This is a comfort to people blessed with large families.

It has been truly said, that the humble man is like a good tree—the more full of fruit the branches are, the lower they bend.

From The Farmers' Register.

THE FARMERS' REMEDY FOR HARD TIMES.

"SELL MORE THAN YOU BUY."

Institute a rigid system of economy, and live, to use a familiar saying, "within yourselves." Dispense with silk and broad-cloth, with tea and coffee, and substitute for them the fabrics of your own households; and for the other, the simple but more nutritious diet, milk.

Improve your lands and your cultivation; cultivate no more land than is rich enough to give back a profit upon the labour of cultivation. Make all the manure you can. Carry into your farm yards corn stalks, weeds, leaves, and every thing that is convertible into manure. Sprinkle over this litter, when first spread over the yard, some lime or plaster, if you have it; or, if not, save all your ashes (do this at any rate), keep it under cover unleached, and use it as a substitute. Renew this litter from time to time as may be necessary; turn over the whole mass two or three times during the winter, and in the spring you will have a large supply of good manure, which plough in, if used for corn, but not too deep. Cover the yard again with litter after the manure is carried out. Shelter your stock as well as you possibly can. Raise at least as much as will supply your own wants—of hogs especially—keep them well; they will pay well for it. Cultivate as many vegetables as will supply both white and black, so that all may have plenty throughout the year. You will find it easily done if you will try. Cabbage, potatoes, cymilins, tomatoes, and other culinary vegetables, are raised with little labour; and labourers are more healthy and much more comfortable by having plenty of vegetables with their meat. Add, for them especially, a good store of black-eyed peas for winter use.

Hogs are easily raised. If grazed on clover from April or May (according to the season) until October—for which purpose two or three acres of good clover will be sufficient for thirty or forty, and an acre or two of cymilins (or more if planted among corn) be added—a daily supply of these through the summer and fall will save the corn crib. This, however, is upon the supposition that the farmer has discarded the old "razor-backs, land pikes and alligators," and supplied himself with a good stock of hogs. Cymilins are also excellent food for cows. A peck to each, morning and evening, if you have tolerably good grazing, will produce the richest milk and butter.

Plant pumpkins with corn wherever the land is rich enough; gather them carefully into some sheltered place before they are frosted, and they may be kept until late in the winter, supplying the very best food for milch cows. If to succeed these you have a crop of mangel wurzel or sugar beet, which may be kept securely by piling up in a conical form, and covering first with leaves or straw, and then with ten or twelve inches of earth—these will carry your cows to the spring grass.

But some perhaps may object that all these little crops will require more labour than they can spare. Try it, and you will find it to be otherwise. They will save a good deal of corn, and the cultivation of all the cymilins, pumpkins, and roots necessary, upon a farm of medium size, will not cost as much as one broad-cloth coat, or one silk dress.

If you can, grind all the corn fed to your stock. Cut up your long forage also, and mix for horses and mules. Even shucks, where there is nothing else, or where fodder, oats and hay are saleable, cut and moistened with salt water some hours before feeding, are excellent to mix with ground stuff of any kind.

If the cob be crushed and ground with the corn, a mixture of one-third or one half of good wheat bran is recommended.

To cut off all the forage for a large stock, it is doubtful whether the efficient labour of a farm can be spared, unless in bad weather. But upon many farms there are some old or weak hands who render little service, yet who might be profitably employed in this way, with the aid of an improved straw cutter.

Take at least one agricultural paper, published in our own State. A good pig will pay for it.

In selecting men to represent you in the assembly, don't vote for politicians. Choose men of your own class, of the most respectable character, and with sound practical sense—not prone to much talking—who, when they go to the assembly, will have no party work to do, but will attend to the public business promptly and faithfully, and, when that is done, go home to their constituents. Remember that the cost of the assembly of this state every year is about \$95,000, and that only ten days of the time they spend in Richmond in useless talking, if saved, would enable the state to give \$10,000 a year towards the improvement of its agriculture. Compare the time consumed by our assembly with their yearly work, and then say if it would not be at least as well done, and in a much shorter time, by a body of sensible practical farmers. But if you won't do this, then look out for all the dumb men you can find, and send them to the assembly—they will take up less time in making signs than is now taken up in making speeches.

POOR RICHARD.

FISHER AMES.

The following passage from the Biography of Fisher Ames, by the late President Kirkland, is worthy of being printed in letters of gold. Would that it could be read and regarded as its importance, by every young man in our country.

"When vice approaches the youthful mind, in the seductive form of a beloved companion, the ordeal becomes threatening and dangerous in the extreme. Few possess the prudence and unyielding firmness requisite to pass it in safety. Those who have been accurately observant to the dependance of one part of life on another, will readily concur with us, that Ames' future character derived much of its lustre, and his fortunes much of their elevation, from the untainted purity and irreproachableness of his youth. Masculine virtue is as necessary to real eminence, as a powerful intellect. He that is deficient in either will never, unless from the influence of fortuitous circumstances, be able to place and maintain himself at the head of society. He may rise and flourish for a time, but his fall is as certain as his descent to the grave. He who holds parley with vice and dishonour is sure to become their slave and victim. That heart is more than half corrupted, that does not burn with indignation at the slightest attempt to seduce it."

TO PRESERVE PEARS.

Take large fine juicy pears that are not perfectly ripe, and pare them smoothly and thin. Lay them in a pan of cold water. Make a thin syrup, allowing a quart of water to a pound of loaf sugar. Then put them into a tureen, and let them lie in the syrup for two days. After two days, drain the syrup from the pears, and add to it more sugar, in the proportion of a pound to each pint of the thin syrup. Stir in a very little beaten white of an egg, not more than one white to three or four pounds of sugar; add some fresh lemon-peel pared thin, and set

the syrup over a brisk fire. Boil it for ten minutes, and skim it well. Then add sufficient lemon juice to flavour it, and put in the pears. Simmer them in the strong syrup till they are quite transparent. Cool and put them into glass jars; and having kept the syrup warm over the fire while the pears were cooling, pour it over them.—*Mrs. Ellis.*

TORONTO MARKETS.

November 14, 1843.

		t.	d.	s.	d.
Flour	per bbl.	196 lb.	17	6	21 3
Wheat	per bush.	60 lb.	3	3	4 2
Barley	per bush.	48 lb.	1	9	2 2
Rye	per bush.	56 lb.	2	3	3 0
Oats	per bush.	34 lb.	1	0	1 2
Oatmeal	per bbl.	196 lb.	15	0	18 9
Peas	per bush.	60 lb.	1	0	2 0
Timothy	per bush.	60 lb.	3	0	3 9
Potatoes	per bushel		1	3	1 6
Hay	per ton		40	0	50 0
Straw	per ton		20	0	25 0
Hides	per 100 lb.		20	0	0 0
Salt	per barrel		12	6	15 0
Beef	per 100 lbs.		10	0	15 0
Butter	per lb.		0	2	0 4
Mutton	per lb.		0	2	0 4
Veal	per lb.		0	2	0 4
Pork	per 100 lbs.		15	0	17 6
Pork	per lb.		0	2	0 4
Turkeys	each		2	6	3 6
Geese	each		1	3	2 0
Ducks	per couple		1	8	2 0
Fowls	per couple		1	3	1 3
Chickens	per couple		0	10	1 3
Butter	per lb.		0	6	0 7 1/2
Eggs	per dozen		0	6	0 7

NURSERY AND SEED STORE.

THE SUBSCRIBER feels grateful for the patronage extended to him since he commenced business, and would respectfully inform his friends and the public, that he has removed from King Street to Yonge Street, immediately opposite the Stores of Ross Mitchell & Co., where he will carry on the business of NURSERY and SEEDSMAN. Having twenty Acres in the liberties of the city, in course of breaking in, as a Nursery and Seed Garden, he can now supply the public with Fruit and Ornamental Trees, Shrubs, Roses, Herbaceous Flowering Plants, &c., at a cheaper rate than they can be got from New-York or Rochester.

Trees and Seeds packed carefully to order, and sent to any part of the country.

GEO. LESSLIE.

Toronto, September, 1843.

CARDING MACHINES.

THE SUBSCRIBER begs leave to acquaint his friends and the public in general, that in addition to his Foundry and French Burr Mill Stone Factory, he has engaged Archelaus Tupper, who is an experienced Mechanist, to make all kinds of CARDING MACHINES, of the latest and most approved construction, he has been engaged for twenty years in the United States, and also in Canada, and has a thorough knowledge of all kinds of Machinery, namely:—Double and Single Carding Machines, Pickers, Condensers, Jacks, Billeys and Jinney. Also, Broad and Narrow Looms, Shearing Machines, and Giggs, Napping and Teazling; Stoves for heating Press Plates; Press Screws. Also, Grinding Shearing Machine Blades; Fulling Mill Cranks, &c., and all kinds of Grist and Saw Mill Castings made to order; Wrought and Cast Iron Cooking and Plate Stoves; Fancy Stoves of all kinds: Also, Ploughs of different patterns; Mill Screws of all kinds; and Damsall Irons; Bolting Cloths, of the best Dutch Anker Brand, warranted of the best quality; Mill Stones of all sizes, always on hand and to order. Also, all the other herein-mentioned articles always on hand and for sale by the Subscriber, at his Foundry, on Yonge Street, as cheap as they can be obtained at any other place.

CHRISTOPHER ELLIOT.

Toronto, August 7, 1843.

P. L. SIMMONDS,

Agricultural Agent & Commission Merchant,
18 Cornhill, London, England.

SUPPLIES to order, Stock, Seeds, Implements, &c., and undertakes the Sale of Consignments of Goods. See his Advertisements in any of the leading papers of Canada East and West.

September, 1843.

TRAVELLING AGENTS WANTED.

THE EDITOR OF THE BRITISH AMERICAN CULTIVATOR is desirous of procuring the services of several competent persons to canvass the Province in the capacity of TRAVELLING AGENTS for that Journal. None need make application but those who can give unquestionable references.

A very liberal rate of discount will be given.

August, 1843.

ROPE AND TWINE MAKER.

THE SUBSCRIBER begs to acquaint the Farmers of the Home District, that he has commenced the business of ROPE and TWINE MAKING, on Yonge Street, near No. 1 Toll-gate, where he has constantly on hand Rope and Twine, and purposes to make to order.

CASH paid for Flax, Hemp, and Horse-hair.

E. BENBOW,

No. 1 Toll-Gate.

Yonge Street, Toronto, Sept., 1843.

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