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THE BRITISH AMERICAN



CULTIVATOR,

Wm. Evans

DESIGNED TO

IMPROVE THE SOIL AND THE MIND,

AND TO

Elevate the Character and Standing of the Cultivators of the Canadian Soil,

W. M. EVANS, EDITOR.

W. G. EDMUNDSON, PUBLISHER AND PROPRIETOR,

VOLUME I.

STAR & TRANSCRIPT OFFICE, TORONTO.

1842.

THE BRITISH AMERICAN CULTIVATOR.

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

Vol. 1.

TORONTO, JANUARY, 1842.

No. 1.

THE CULTIVATOR.

Introductory.

Since the issue of our Circulars, under date 16th of Nov. last, a circumstance has transpired which has induced us to change the title of our publication. The motives, influencing us to adopt the present title, are expressed at large on page 4. We have issued our first number a few days in advance of its date, in order to give Subscribers to periodicals of a similar character, published in the United States, an opportunity of supporting ours, by transferring their subscriptions, which commence with the New Year to the support of a Canadian paper, which, we flatter ourselves, will be found deserving of their patronage. The circulation of those papers in these Provinces is sufficient to cover all the expenses that would be incurred, on a similar publication issued in our own country. We give a notice in another column, taken from the new *Genesee Farmer*, of the "death of the *Canadian Farmer and Mechanic*, for want of proper care and nourishment." That paper alone has a circulation of 1,500 in the Province of Canada. Our sheet is exactly of the same size, and the difference in price, in favour of theirs, will be only one half-penny on each number, when the postage is added. We leave the matter to be decided by an intelligent public, whether a publication, devoted exclusively to our local interests, should be supported and *nourished* in preference to one of a foreign character. The immense outlays we must necessarily incur for suitable Engravings, to illustrate the different important subjects that may come under our notice; and the extremely low price of our publication will require an extensive circulation to defray the expenses; confidently anticipating that our spirited Yeoman will use every exertion in their power, to establish a publication in British America, devoted exclusively to their interests,—we have been induced to give them a fair trial—we hope our confidence will not be misplaced. Let but every individual who has any interest in the cultivation of the soil take a prominent part in promoting its circulation; and the scientific and learned become contributors to its columns, the work will then be easily accomplished.

It is a matter of astonishment, as well as regret, while commercial, as well as political papers, may be numbered in our country by the score, that not one is established, devoted exclusively to the leading pursuits of five-sixths of the whole population. The result of this neglect, in a great measure, has been the necessity of large importations of the necessaries of life from Great Britain and the United States, whilst we have had but a trifling surplus production to exchange for those commodities: whereas, if a judicious system of husbandry were adopted, throughout every section of these large and fertile Provinces, an annual average surplus would be given, sufficient to meet the de-

mands of our importations. The great truth, that the real source of our wealth, lies in the productive industry of those classes whose welfare it will be our object to further, is beginning to be better understood, and its wide spread agencies more fully appreciated, by every lover of his country.—Our yeomen are, in general, the owners of the soil they cultivate—farm may be added to farm, with the possession of property, a spirit of inquiry is awakened, information of a character that will enhance their interests is demanded; and men of science, experience, and ability, are gladly consulted. Towards lightening the labours of an Editor, in charge of an agricultural periodical, we invite the cordial co-operation of the friends of those interests. Much of the work will necessarily devolve upon them—if each contribute his mite the work will be greatly accelerated. There are many scientific practical Farmers interspersed through these North American Provinces whom, we think, the public interest have claims sufficient to induce them to make known, through our columns, the results of their research. There are, likewise, hundreds of able practical husbandmen who are unaccustomed to write for the public press, and such we wish to give in a plain statement of facts, if they require any dressing, we will place them in a proper form before our readers.

The great advancements which Agriculture has made in Great Britain, within the last half century, furnish a very interesting example of the improvements of which this science is susceptible. We need only notice the amendments introduced into different sections of these provinces within the last fifteen years by emigrants from the British Isles, to show that much improvement may be made in the general practice of Agriculture. Every available exertion shall be used, on our part, to advance the true interests of the cultivators of the soil, by extending an improved system of cultivation throughout every portion of the Provinces, and encouraging the more extensive use of articles, the produce of our domestic manufactures.

We shall address a copy of this number to each Post-master throughout the Provinces, and likewise forward one to many of the most influential Farmers, in the hope of making it generally known; being confident that it is only necessary to bring it to the notice of those classes, for whose benefit it is intended, to induce most of them to become Subscribers and we request those who may receive a copy of it, to use their influence for our publication, if they cannot attend to it personally, we hope they will be kind enough to place the paper in the hands of some individual who will feel interested in extending its circulation. We hope all those who do not feel disposed to subscribe for our paper, or take an interest in its publication, will be kind enough to return the number, (by post,) to the Proprietors.

All Post-Masters, who take an interest in our publication, will be considered authorized Agents—such will please forward their names and address to the Editor of the *British American Cultivator*, without delay. The same premium will be given them as we allow other Agents.

Cheap Houses.

There has been within the last four years introduced in this District, a style of houses as yet comparatively unknown to other parts of the Province. We feel a pleasure in bringing it into general notice, as it will, no doubt, be brought into general use as soon as its good qualities are fully known. The houses constructed on this style are denominated "the unburnt brick house." The few brief hints we intend to give at this time on the subject, will be more to solicit correspondence than to give a detailed description of the process of building. If those who are more acquainted with the matter than we are, should fail to give the particulars, we will advert to it in our next, and endeavour, by the ensuing spring to give creditable testimonials in their favour, and clearly elucidate the subject to the understanding of all classes who take an interest in reading our Journal. These buildings cost about the same price as a frame, and a farmer who could do much of the work within himself, could erect the walls of such a building nearly as cheap as with logs. The material for the brick is prepared much in the same manner as for common brick, with the exception of its being mixed with straw. The dimensions of the brick are 6 inches thick, 12 inches wide, and 18 inches long. A number of houses have been built this last summer by contract, at the rate of £1. per hundred brick, (including making) containing an area of 75 feet of wall. The walls of a house, 30 feet square and 15 feet high, at that rate would cost only £34. The common practise is to rough-cast, and when built upon a good stone wall, are considered the warmest and most durable house that we have. There are within a circuit of 40 miles of this city, at least 200 of those houses, and the most of them have been built within the last 2 years. We have seen houses, barns, stables, and sheds built upon the same plan. All seem to be well satisfied, and recommend their neighbours "to go and do likewise." Much credit is due to the person who introduced this valuable plan of buildings in our country, and if any are solicitous to hear further on the subject, he would no doubt answer, through our columns, any inquiries that may be made.

To Correspondents.

WE hope all those who may be kind enough to contribute to the columns of the *Cultivator*, will endeavour to make their articles interesting and useful. We have noticed the speculations of the Multicaulis—the Chinese Tree Corn—the Rohans—the Egyptian—Siberian—and Italian varieties of wheat, and all the other humbugs, which have been practiced among our neighbours, within the last few years; and confidently hope that we will not be the instrument of palming on the public such impositions. We are fully aware that some varieties of seeds, roots, &c., are much better, and more profitable, than others; but, it is quite soon enough to bring them into public notice, when their good qualities, and adaptedness, to our climate, are fully tested—they may, then, be brought safely into notice, and the public instead of being deceived will be benefited.

We give below two copious extracts from Mr. Evan's Supplementary volume to his treatise on Agriculture—the valuable hints they give on the natural capabilities of our country, and the great advantages to be derived from an increased production of articles for export, should warrant their notice and careful perusal.

"I would observe that by not having more produce to dispose of, Canada loses in a great measure the advantage of the capital brought into the country, and it is scarcely ever employed after it is once paid away by those who brought it here, until it is again returned to the British Isles. If the cultivated lands were all producing as abundantly as they might, and ought to be, the farmers would be able to supply all the home demands, and have a surplus for export fully sufficient to pay the balance of the imports, without sending back the money brought into the country directly, before it was a second time employed advantageously in Canada. I have no hesitation in saying that were the lands now occupied in Upper and Lower Canada managed properly, and judiciously, they would yield (except in very adverse seasons) a surplus produce to sell to foreign customers, more than sufficient to pay the balance of the imports, after abundantly supplying all the demands of the present population for food. It is possible that a greatly increased influx of strangers to Canada, might at a future time, prevent the possibility of exporting constantly as much of the produce of agriculture as would fully pay the balance of the imports that might be required for the use of a greatly increased population, as emigrants could not, for the first few years, produce much for themselves; but the increase has never yet been so great that the exports might not have been equal to the imports, if the agricultural produce had been any thing near what it was possible to make it.

I will admit that Canada may, and is, prospering, notwithstanding her imports so much exceed her exports, and that she may go on increasing in population and wealth, her commerce continuing to show the same results as at present, while she receives an accession of population, and capital annually from abroad, that is employed in the cultivation and improvement of her waste lands. But let the accession of capital coming into the country be discontinued, and she must then sell produce to customers *out* of Canada, to the same amount of her imports, or the imports will soon be reduced to the amount of her exports, if there was a balance over, it could not be paid. It is not the merchants who are to blame for bringing more produce and manufactures into the country than is exported of produce from the country, nor is it for the accommodation of the merchant, that those goods, when imported, will be purchased, but because the people want them. The merchant would find it much more profitable to export produce, in payment to other countries from which he receives his imports, than gold or bills of exchange, that are always at a high premium. If he had produce to export, he would have a profit on that produce, perhaps equal to that on his imports. On remitting gold or bills, he cannot have profit. It must, therefore, manifestly be the interest of all parties, that the produce of Canada should be exported or sold to customers *out* of Canada, to nearly the full amount of the imports from other countries. The exports of England exceed her imports by more than a third, besides the profit of carrying almost exclusively to their destination, upwards of £70,000,000 sterling worth of her produce and manufactures, which must add immensely to their value.

"I may be too sanguine in my opinions of the natural capabilities of Canada for pro-

duction. I acknowledge that I cannot see any thing in the circumstances of the country, geographical or physical, that should prevent it from becoming populous and productive, as any part of North America, or as most countries of Europe. Though the winter may continue four or five months in the year, and so severe, as to cover the whole surface of the land with snow, and the mighty rivers and waters of Canada with ice, so far am I from thinking this circumstance prejudicial, that I look upon it as being ordered so by a bountiful Providence for the good of the country, and the convenience of those who inhabit it, and who could not otherwise make so profitable a use of it. If it is cold in winter, there is abundance of fuel on the spot, to keep the people warm and comfortable. What use would the majestic forests of fine timber be, that are so much wanted in other countries, and which now constitute almost the only exports, if there was not snow and ice in winter, that allows this timber to be prepared, and brought to situations where the waters will be navigable in summer, to be exported to those countries, which will give in exchange the goods that are required by the population of Canada! Were the winters soft and open as in England, the forests would be useless; indeed it would be scarcely possible to get firewood from them. Good roads, in a country of such vast extent, to accommodate all, are impracticable to a thin population, and until the country is more thickly settled, it is fortunate that the climate is sufficiently cold in winter, to make roads nearly equal to rail-roads, without any expense. The summer seasons on an average of years, are more favourable for agricultural production and for harvesting the produce, than in most countries of Europe, or the United States; and it is a well established fact, that the winters, however severe, are not injurious to the health of plants or animals."

"By a reference to the price of provender for cattle, for the last ten years in the principal markets of Canada, it will be found that in seven years out of ten, the best hay has been selling from £1 to £2 per ton, a convincing proof to me that the productiveness of the land in summer is sufficiently great, amply to supply the wants of a long and severe winter, with any farmer who understands his business, and will practice what he knows, and those who may not understand or will not practice a proper system of husbandry, cannot justly attribute unprofitable farming to the climate, as far as I am capable of judging."

"I consider that state of population the best, which will afford to every individual an opportunity, by applying their talents industriously to some useful and suitable occupation, to provide what is necessary of the conveniences of life, for rational enjoyment, according to the station they occupy in society. If all who are disposed to be useful to themselves, and to society, are offered a fair and equal chance to advance their circumstances, which I hope they always will have in British America, those who will possess most talents, industry and prudence, will be able to acquire proportionate advantages.—For ages yet to come, Canada will afford the materials to produce the necessaries and conveniences of life to those who will seek for them and be disposed to make them available. There is an objection that possibly may be urged to the capabilities of the country, from the failure of crops in adverse seasons, in the lower parts of the Province. Adverse seasons are not more frequent there, than in many populous countries of Europe, and there may be much of the disappointment in crops to be attributed to bad ploughing, insufficient draining, judicious cropping, and the total neglect of a proper system being observed in the management of the land. I

have no doubt these causes have produced more loss than the climate."

"Nineteen-twentieths of the forests of Lower Canada is now unproductive and waste. Would it be for the interest and advantage of every individual of the present community in this Province, that those lands should be settled, and cultivated as speedily as circumstances would permit? Would their settlement to the full extent which I have above stated be consistent with the general comfort and prosperity of so greatly increased a population? These questions I candidly answer in the affirmative, from the clearest conviction of my own mind. What has hitherto confined the settlement of the lands so much to the front, or the banks of the principal rivers! The difficulty of going back, and making roads at the labour and expense of a thin population. Were the back country occupied by active settlers, this difficulty would be obviated. The same road that would be necessary for the convenience of five settlers, ten or twenty miles back in the forest, would answer for a hundred, or perhaps for five hundred; and the making of a road which five could not undertake, would be easy to five hundred. There are many other circumstances which prevent almost the possibility of a few persons going back into the forest to commence a settlement which would be rendered perfectly practicable to a more numerous body settling together, who would assist each other and would leave no interval of woods unoccupied to injure the small portions of cleared land that can never be productive without a free circulation of air. I have heard much complaint in these Provinces of the injurious effect produced from the Crown and Clergy Reserves being left waste. If these waste reserves are injurious to the adjoining cultivated lands, which no doubt they must be, how much more injurious must it be to the poor settler who ventures to commence a settlement in the wild forest, without neighbours on any side to assist him to open the forest, or drain the land. Enclosed by high, impenetrable woods, that prevent the sun a good part of the day from shining on his clearance, what chance was he to be successful, or to be happy! debarred himself and his family from all communication with their species, their state will be little better than that of the savage; and they are unable to derive from their lands and labour, half the produce they would do, were they surrounded with neighbours, cultivated fields, and easy access to markets. Means of free and constant intercourse has, in all countries, a powerful influence on civilization, improvement, and rational enjoyment, principally because it greatly augments the produce from every branch of industry; and it is only where industry is abundantly productive, that civilization and improvements will go on, and rational enjoyment can be practicable to the people. Where a population are barely able to subsist, civilization will not be greatly advanced, improvements are out of the question, and what ought to be considered as rational enjoyment is civilized society, cannot be known or understood."

"In Lower Canada, the greater the population the more there will be annually produced, and the greater will be the savings that can be made, to be again expended in useful improvements, productive labour, in cultivation and in the comfortable settlement of the rising generation. This produce might be constantly going on, augmenting, population increasing, and the power, wealth, and prosperity of British America advance most rapidly and certainly. In all new countries that have abundance of good land, waste and unprofitable, it ought to be the first object of government and people, to settle and cultivate it. The prosperity of the United States is estimated by the rapid increase of

her population, the clearing and cultivation of her forest lands, and the growth of her cities, towns and villages. This must be the true mode of estimating the prosperity of British America. Nothing but the settlement and cultivation of her land, can give her a numerous population, and flourishing cities, towns and villages. It is the produce of the soil that must supply what is necessary for the support of a numerous population, and means of carrying on commerce, the profits of which will give funds for the extension of the cities, towns and villages, and the establishment of such manufactures as would be likely to be profitable."

"To a country that has a thin population, and a territory of almost boundless extent, it can only be rendered productive by the labour and industry of man, an accession of population able and willing to work, not of the idle and worthless, *must be profitable*.—Whatever is produced from the labour of a man, applied to what would have continued unproductive, if he was not employed upon it, must add so much to the produce annually created, and increase the wealth of the country, by the amount produced over what he consumes. A full grown man then coming into a country capable of producing more than he consumes, under the circumstances I have above stated, is equal to a capital of the same amount that was required to support him from infancy to manhood, or a working state, because in every country what it takes to support the rising generation to be capable of working, or of being productively employed, must be so much unproductive consumption, and more particularly to the country that loses their services when they are at maturity, and capable of rendering service."

"I make a distinction in the value of emigrants to Canada. The industrious labourer, though poor, is in himself a certain amount of capital. The skilful agriculturist with moderate funds, is still a more useful emigrant. The farmer who has both skill and capital, is of more value to the Province than either of the other classes—not agricultural, who with sufficient funds or industry are all valuable. It is only those who come with their families, and without any disposition to improve them by industry, that cannot be of benefit to a country, where industry is the basis of prosperity; they add nothing to production, but on the contrary lessen the funds that should be employed in productive labour, and must therefore be injurious to a community such as that of British America."

Chemical Analysis of Soils.

"The order in which the principal substances that enter into the composition of soils possess an absorbent power, is the following:

1. Animal and vegetable substances.
2. Alumina.
3. Carbonate of Lime.
4. Silica.

It appears, too, that the more perfectly a portion of the soil is comminuted, decomposed, and reduced, the greater is the power of absorption which it possesses.

But, although certain earths in their separate state have a greater power of absorption than others, it does not follow, that a soil consisting chiefly of that one earth would possess a greater power of absorption than a soil composed of mixture of earths, even though these earths should in themselves be less absorbent. Thus, a soil consisting chiefly of aluminous earth, though alumina is itself the most absorbent of all the earths, being water up in the greatest quantity when poured upon it, as well as retaining it the longest, is not really so absorbent as when it is mixed with other earths. Hence, the stiffer clays are not the soils which absorb water readily from the atmosphere. Such soils, when the weather is dry, become indurated

upon the surface, which presents an obstacle to absorption; and thus we find, that the vegetation of very stiff clays is almost as soon injured by drought as that of sandy soils, and much more quickly than that of good loams.

A mixture of siliceous sand, then, with a very aluminous soil, although the sand is the less absorbent substance of the two, increases the general power of absorption from the atmosphere; so also does a mixture of lime, and, in an eminent degree, of animal and vegetable matter.

It is not, then, the prevalence of any one earth that constitutes a soil well fitted to absorb humidity. A mixture of certain proportions of alumina and silica, of carbonate of lime, and of vegetable and animal matter, appears to be the best suited for absorbing the humidity of the atmosphere, of preserving it, and transmitting it the most regularly to the plant.

Neither is the prevalence of any one earth in a soil favourable to its general powers of production. Too great a proportion of alumina forms a soil too stiff and tenacious.—Such a soil will, from this cause, be found to be unproductive. A soil consisting of carbonate of lime only, as we see in the case of chalk, is a bad soil. A soil consisting of alumina and carbonate of lime only, as we see in the case of clay-marl, is unproductive as a soil, until mixed with other substances. A soil consisting chiefly of silica, is often so barren as to be incapable of sustaining vegetation at all.

It is an error to hold that the relative fertility of soils may be determined by their power under the circumstances mentioned, to absorb moisture from the atmosphere.—Peat-earth is a very absorbent soil, but it is not a soil of great fertility. To infer that the fertility of soils depends upon their powers either to absorb or to retain moisture, were to reason as if these were the only conditions of fertility in soils, which does not appear to be the case; and other experiments accordingly do not bear out the conclusion that the fertility of soils depends upon these properties. But this may be inferred, that all productive soils have a considerable power of absorbing moisture and retaining it when so absorbed, and that this property does not depend on the prevalence of any one substance, but on a mixture of several substances.

It has been found also, we have seen, that the fertility of soils, however produced, is not dependent on the prevalence of any one mineral in the soil, but on a mixture or combination of several. But what the precise proportion of these is which is most favourable to fertility, has not yet been determined.

Without detailing any of the numerous experiments of chemical analysis that have been made, with the design of ascertaining this and other points relating to the properties of soils, the following conclusions may be given as apparently deducible from the investigations that have taken place:—

1. Soils in which a large quantity of silica and alumina exists in the state of fine division, are comparatively fertile.
2. Soils in which the quantity of siliceous sand is large are comparatively infertile, while soils in which the sand is fine and only partially siliceous, are comparatively fertile.
3. Iron exists in all soils, but does not influence their fertility in proportion to its larger or smaller quantity.
4. An excess of the acid combinations of the oxide of iron, and certain other saline bodies, is hurtful to vegetation.
5. Carbonate of lime exists in the best soils, and, generally, though not always, in larger quantity in the better than in the inferior soils.
6. Certain earths possess the power of combining chemically with animal and vege-

table matter, and of retaining it for a longer or shorter time. Thus, alumina and lime form certain compounds of greater or less insolubility with animal and vegetable matters, while silica will not enter into the same combinations, and hence it is that aluminous and calcareous soils retain for a longer time the manure applied to them than siliceous soils.

7. When water is in excess in the soil, and when vegetable matter is present, acid is formed which is injurious to the productive powers of the soil. Farmers are familiar with this effect, and say that the soil is soured.

8. Soils, besides absorbing moisture from the air, appear to absorb carbon and other matters nutrimental to plants.

These are the principal results to which the chemistry of agriculture has conducted us with respect to soils. This branch of science, however, may be said to be as yet imperfect, and a large field of useful investigation still remains for the philosophical inquirer. Although it may be said that much has not been done with relation to the really useful, which observation and practice had not before shown, yet we have at least escaped from the errors of former opinions, and so far the path of further inquiry is more open to us.

Amongst other results to which this species of investigation has conducted us, we have seen—that the practice known to agriculturists of mixing together different kinds of earths, admits of explanation on principles founded on our knowledge of the composition of soils, that the beneficial action of manures depends upon a proper constitution and texture of the mineral portion of the soil, and that hence to derive the full benefit of manures, the province of the cultivator is to improve the texture and constitution of the soil, that the comminution of the component parts of the soil is beneficial, as rendering the whole more pervious to the air, and the vapour, and other matters, with which the atmosphere is charged, and further, we have been enabled to render our common nomenclature of soils more precise, by distinguishing them by the terms Siliceous, Aluminous, Calcareous, Magnesian, and Ferruginous, as silica, alumina, lime, magnesia, and iron, prevail in their composition.

We might now proceed to consider the relation existing between the soils of a country and its geological condition. This is a subject interesting to the scientific agriculturist. But, however curious the investigation might prove, it is not necessary for that practical illustration of the subject of soils, which consists with the design of this work. Besides, to characterize the quality of soils, as affected by the geological nature of the country or district, is to view the subject in a somewhat more extended manner than is consistent with the common purposes of the farmer. Although it is found that a relation may be generally traced between the nature of the rocks of a country or district, and its fertility—as, in the British Islands, between the new red sandstone and the finest districts of the country; between the coal formation, under certain circumstances, and a ferruginous and somewhat ungrateful soil; between the magnesian limestone and a tract of comparative infertility, between the lias formation and one of comparative productiveness, and so on—yet many degrees of quality may exist in the soils of the same series of rocks, and in the same country, and even all the contrast between great fertility and great barrenness may be found within the limits of a single field. We must, therefore, narrow our views when we examine the soils which we have occasion to cultivate, and regard, not their properties with relation to an entire district, but their minutest shades of fertility and character."—*Jerr's practical Agriculture.*

THE CULTIVATOR.

SINCE we issued the Circular for the "Farmer and Mechanic," a circumstance has occurred, which has caused us to change the title of that Periodical. The public, undoubtedly, require an explanation, which we freely give.

In the latter part of July last, we resolved to issue, from our Office, in January, 1842, a Monthly Periodical devoted exclusively to the interests of the agricultural population of the British Provinces in North America, to be entitled the BRITISH AMERICAN CULTIVATOR, and to be similar in size and appearance to the one since published at Kingston.

We were at Kingston at the time when the former proprietors of the Farmer and Mechanic, issued their second prospectus. We told them, as they had not published their paper in accordance with their original agreement, we had come to the conclusion to publish one at Toronto; but, as they had their second prospectus before the public, we would exert no opposition to theirs, but do all in our power to further their interests, by recommending our friend to take their publication; at the same time pointing out to them the difficulties they would have to encounter, being both strangers and neither having any stake in the country: the principal proprietor or editor, being an alien, would be sufficient in itself to prejudice the public against their periodical. Notwithstanding our advice, the first number of their paper was issued in August last—we were much pleased with its appearance and recommended it to the notice of upwards of One Hundred persons, a considerable number of whom were gentlemen of the first standing in our country. We, likewise, procured many subscribers, who paid their money in advance; and also wrote a number of letters to friends in different parts of the country, soliciting their interest for the Farmer and Mechanic, showing forth the advantages to be derived from such a publication, were it efficiently supported in these Provinces.

The Editor, through some cause unknown to us, made his exit from Kingston, a short time after the second number was issued, leaving his bills, &c. unsettled. He was publishing another Paper, in Syracuse, before the third number of the Farmer and Mechanic was printed.

The other proprietor came immediately to Toronto and proposed to sell us his interest in the publication. An agreement was effected, and the Subscription-List, Exchange Papers, and Correspondence were all forwarded according to agreement; but the back numbers were delayed until after our circulars were published and circulated. Instead of their being between five and six hundred copies of the three first numbers, as was stated, there were only one hundred of the first number, and only, 450 of the 2nd, and 3rd numbers; but little value could be attached to them, unless they were set up again and an additional quantity struck off. The names on the list which we received amounted to 520, 144 of which are marked Paid; we engaged to forward those their numbers, until the period their subscription expires, and risk the chance of obtaining the subscription money from those not marked Paid. We have since found numbers of instances where Subscribers have paid their money in advance, and no credit been given them on the book, and many of such had not received a single copy of the paper until it came into our hands. We make the alteration in our Title Page for our own security, and to sustain the credit of our publication. Those on their list marked Paid will receive monthly the other copies due them, and the others will have received their three copies free of charge, with the postage paid, unless

they have been so unfortunate as to have paid their money and received no credit.—We hope the latter class are but few, and in order to free the public mind from suspense on this discreditable subject, we will mark Paid on each first number we send the former class, so that each may know whether any credit has been given them or not.—Those that have been deceived in the former publication, must not be discouraged; (although we have been deceived) yet we will endeavour to earn a character for our paper, which will be both creditable to the Conductors and Supporters.

Petition.

We Copy elsewhere, a Petition to the Queen, for a free admission of Colonial produce in the British Markets, adopted by the Agricultural Committee of the Home District, and would urge the propriety of the public cordially co-operating in soliciting this grant. In advocating the general interests and welfare of the Agricultural classes in British America, we shall endeavour always to have a due respect for those of an other character. If this petition should be fully granted, we do not consider that it would materially derange the Commercial or Mercantile interests of these Provinces, on the contrary it is our opinion, that in a few years, they would experience an adequate share of the benefits expected to accrue from such an arrangement. It would be the means of bringing annually a large amount of Capitalists into the country, and would stimulate our Yeomen and Backwoodsmen to renewed exertion; and would without doubt, soon give that stimulus for Agriculture which these Provinces have so long merited. Those who are opposed to protecting duties, argue that it would run the immense carrying trade of the St. Lawrence. We believe these apprehensions to be ill-founded. The surplus produce of the "far west," has to find a market for consumption out of the United States, three years out of four, and the one which would be most stable, would unquestionably be preferred by the western Merchant. It would be more to his advantage, to pay a stipulated duty to the Colonial Government, and have his articles brought at once into market; than to be liable to the bonded warehouse restrictions, under which they would probably not be admitted for a number of months. We hope the subject will be introduced at the different Township meetings, which take place on the first Monday in the "new year," and will meet with a general concurrence.

Hemp.

The Culture of Hemp as an article for export, deserves our serious consideration. We are not strangers to the fact, that this subject has been under discussion from the earliest settlements of our country down to the present period, that inducements have been held forth to the public, by the Executive, amply sufficient to warrant the adoption of its culture, had public opinion been enlightened or aroused to the importance of the undertaking. We would not wish it to be understood, that the culture of this article should interfere with a well organized system of farming; or that it should be introduced in those sections of the country where Wheat can be grown with success or profit. The Hessian fly have made such ravages upon the wheat crops for the last few years in the Eastern part of the Province, that in many districts the farmers have not secured their seed. Mr. Evans, of Cote St. Paul, whose opinion on this subject should be respected, and whose name connected with the Agricultural History of British America, should be revered by every Colonist, has advised the *habitans*, and inhabitants of those townships where the influence of this insect has been most destructive, to abandon alto-

gether the cultivation of wheat, for a few years. It being formerly their staple crop, and its successful cultivation being impracticable, their situation will be calamitous unless some other crops be cultivated to give them employment and sustenance. Some plan must therefore be adopted, and the one we would propose, is the cultivation of Hemp.

Great Britain would much rather purchase the raw material from Her Colonies in exchange for the produce of Her manufactures, than send one million of dollars and upwards, annually to the Baltic, to purchase the same material. It is held to be a good paying crop in those districts in England where it is yet raised.—The produce per acre, is estimated to be worth from £20 to £25 per acre, if the land be of the proper quality. The high price of Manual labour would probably curtail a large proportion of the profits. Much of its management could be performed by the weaker members of the family, and the dressing and preparing for market could be done in the winter season, in suitable houses erected for the purpose.

The columns of the Cultivator will be open for Communications on this important subject.

Advertisements.

The only class of advertisements that will be inserted in the columns of the Cultivator, are those of improved breeds of live Stock, Farming Implements of a superior character, choice varieties of Seeds, select Fruit Trees &c. Only one insertion will be given, and that in a condensed form. As we do not intend to make any charges for such advertisements, none will have claims but subscribers.

Correspondents.

NEWMARKET, Dec'r. 14, 1841.

To the Editor of the British American Cultivator

Dear Sir,

I am happy to learn by the Circular, which you were kind enough to send me, that you have an intention of publishing an Agricultural Journal; and thus supplying a most important void in Canadian literature and intelligence. As this intention is an earnest of useful enterprise, and desire to be serviceable to a much neglected and important branch of Canadian industry—scientific agriculture—permit me to say, that I sincerely hope a generous public will duly appreciate your efforts, and cause them to redound to your own advantage.

The duty of a public journalist is at all times arduous, and more especially so is his whose pathway is in a great measure untrodden, and whose investigations are at once designed to supply intellectual food, moral dignity, and pecuniary advantage for a class of readers, for whom I regret to state, science has as yet done little, but whose interest, all true lovers of their country, are ardently desirous of seeing promoted.

In short I am of opinion, that in order to promote good government in this Province, it must be accomplished by extending the education of the agricultural classes, far beyond what has ever yet been contemplated as they form the mass of our community, and then intelligent exercise of their franchises, can alone shed permanent light over government and legislation. Unlike the privileged and professional classes, they can never have an interest in wrong; while they form the broadest basis for freedom to rest upon, and the surest check on pernicious encroachments. On these accounts I trust that your columns will be ever open to the admission of well written essays on all subjects connected with agricultural education.

Perhaps it may appear to some impracticable, yet it is my candid opinion that natural and

mechanical philosophy, mineralogy, botany, and chemistry, may be as practically taught in our common schools as arithmetic; and that the structure and uses of the earth which we inhabit; the composition and uses of the air which we breathe; and the organization and functions of vegetable and animal life, may be made as familiar to the minds of our agriculturists and mechanics, as their household words, and this too without any great expenditure of either money or time to accomplish it.

And what would be the result if this could be accomplished? I answer: it would create a nation of philosophers; a nation of reasoning beings, instead of their being, as they too often are, the blind instruments of passion, and the dupes of designing men. It would open the book of nature to them, and as a natural result, by familiarizing their minds with nature's works, elevate them to nature's God. Thus the important objects of intellect and morals would be attained; while a flood of light would be poured upon every operation, and open the way to profit, enterprise, and improvement. That such should be the results, is as inevitable as that natural causes should be followed by natural effects: as that day should follow night, and lassitude and weariness, a period of protracted labour.

What then are the obstacles to be overcome? I answer but few: and these neither great nor formidable. It is only necessary that the present foundation of common schools should be extended, and that we should establish in addition thereto Normal Schools, for the instruction of teachers. Let every candidate for instruction as a teacher, be required to comply with the following conditions:—1st. To produce proof of his thorough acquaintance with the common and ordinary branches of education:—2nd. To give security that he will, after his instruction, continue to teach a common school, (health permitting), for some definite period of time, so as to make a return of benefits to the public, for those he has received.

Let it be the business of such Normal Schools to instruct teachers in all the above sciences, and in the best and most approved mode of conducting schools, and communicating instruction to others. In short let lectures be delivered, books and apparatus be provided, and cabinets be formed at the public expense, sufficient to illustrate every subject; and as soon as each teacher shall be fully qualified to teach, let him receive a license for that purpose: but let it be incumbent on him to deliver lectures at least twice per week in the school house, and twice in the evenings; and to teach and illustrate every subject in the same way as in the Normal Schools.

By this simple machinery, our common schools would soon become instruments of much greater usefulness. They would be the means of lifting many from obscurity to high intellectual attainment. They would, during the long winter's evening, become focuses of attraction to the old and young, and confer blessings on present and future times.

And what would be the expense of all this? But light indeed compared with the advantages; perhaps one thousand pounds per annum for each District.

I am aware that many objections may be offered to this plan, and so there may to any other that could be suggested. The importance of the subject, however, is a sufficient justification for offering it, and therefore you are at liberty to publish it.

It is a curious fact that a plan, somewhat similar to the one here contemplated, has been some years in operation in despotic Prussia; and its effects are that she now possesses the best educated peasantry and yeomanry in the world: while in most other

countries, these classes have been shamefully neglected.

The latter fact is indeed most melancholy; for if we estimate dignity by immediate usefulness, agriculture is undoubtedly the first and noblest science which can engage the attention of man; and it is neither just nor equitable that those who feed all the other classes, and contribute most to sustain the social fabric, should be doomed to neglect, and considered to occupy the lowest grade in society.

That conscious ignorance should court obscurity, and beget apathy and indifference to the acquisition of knowledge, is in accordance with experience; but it surely becomes the duty of those who are entrusted with the destinies of mankind, to take care that the means of intelligence are placed within the reach of the most numerous classes, who are in truth both the basis and the superstructure of the social pyramid; the privileged idlers being but its gaudy trappings, which could be dispensed without injury to the structure.

But my desire would be to see the working classes in every community, not only the basis and superstructure of the pyramid, but forming also its Corinthian columns and capitals, and combining all that is solid and substantial, with all that is elegant and beautiful; which I think quite practicable by following out the outline here suggested.

The profession of agriculture indeed affords many facilities for the study of nature; yet there is a veil over the path of science, which requires more patient industry for its removal, than the unassisted agriculturist can bestow. The consciousness of this often deters him from the attempt; yet give him but the facilities here pointed out, and nature will be to him no longer a sealed book; those simple and beautiful laws which our Creator has ordained for the perpetuation of, and government of his physical, moral, and intellectual universe, will then be contemplated with pleasure and delight; their application every where, to the business of life, will be understood, as well as the consequences of violating them.

It is in obedience to these laws that the water-drop steadily pursues its course from the mountain to the ocean, giving impulse to innumerable wheels and contrivances for aiding the operations of industry. It is in obedience to the same laws that it again mounts into the atmosphere, to descend anew in the form of dew, rain, hail, or snow; and that it again commences a new circuit through the earth, ocean, and air.

It is by the investigation of these laws that we are enabled to understand the composition of our globe, and of the different soils, metals, and minerals which compose it; and can transform, combine, and modify at pleasure, so as to convert them to the purposes of society.

It is by the investigation of these laws, that we are enabled to discover the organization and qualities of vegetables, their capacity for improvements, their adaptation to different soils, their best mode of culture, and the most effectual means of guarding against the effects of climate and the ravages of insects.

It is by searching into the laws that regulate and sustain the animal kingdom, that we learn the mechanism and functions of an animal body, and the means by which health is preserved and invigorated, as well as the best means of combatting disease, and the best selection of animals for profit, food, or labour.

Again, by prosecuting these enquiries, we learn the relations between the different kingdoms of nature, between health and the atmosphere we live in, between soils and the vegetables they sustain, and between the different animals and the vegetables they

feed upon and know what to cultivate and what to avoid.

The following example admirably illustrates some of the beautiful and wonderful economy of nature. Respiration is a natural process, for the purpose of supplying heat and oxygen to the blood; and none of the perfect animals can exist without it. This oxygen is derived from the atmosphere, which is a great natural reservoir for containing it; but as the consumption is continually going on, if there were no provision for supplying it, the animal creation must soon cease to exist from its exhaustion—This provision is bountifully made by our Creator in the vegetable kingdom. By vegetable nutrition carbonic acid-gas—a fluid expelled from the lungs of animals, and destructive to animal life is decomposed; and while its carbonic is appropriated as vegetable food, its oxygen is disengaged, to supply that consumed by respiration. Thus it is, that a flourishing agriculture at once purifies the air, and becomes conducive to health, nay, supplies that fluid which is essential to animal existence. Thus it is also, that the study of nature is the study of our country's wisdom, goodness, and beneficence, and is above all studies, calculated to improve the mind, by raising it to the great source of light and knowledge.

That our agriculturists and mechanics may, with much pleasure and profit, and with but little expense and trouble, become familiar with all the great fundamental laws which govern all created beings, I sincerely believe; only let the outline here suggested be carried out to its natural and legitimate consequences, and in a few years we shall find cabinets of natural, rare, and valuable curiosities formed in every family; we shall find books, maps, and simple apparatus, for trying chemical experiments, in the hands of every youth, instead of pitching quoits, or coppers, ball-playing, and petty gambling; we shall find mechanics' institutes and lyceums established by the aged, in every village, to discuss the natural sciences, and to aid and assist each other in the pursuit of knowledge; in short, we shall find the greatest moral revolution that the world has ever seen; a whole people knowing their rights and their duties, and determined to maintain the observance of both.

I am, Sir,

Yours respectfully,
JAMES HUNTER.

Provincial.

The following is another proof, amongst the numerous others already given by our Bytown contemporary as well as ourselves, of the fertility of the soil along the mighty Ottawa:

"SIR:—Having noticed a short time since in a United States paper, an account of a 'Large Turnip,' weighing 16 pounds, I was induced to weigh one which I raised this season, the weight of which was with top 23½ lbs. without top 17½ lbs. I may also mention as a proof of a productive soil, that I this year cut over 2½ tons of second crop Hay, and upon 3½ acres of land, cut 12½ tons Hay (first and second crop). So much for farming in this part of Canada significantly called 'beyond Sunset.'

Yours, &c.

A YOUNG FARMER."

"P. S. The land upon which the Hay above mentioned was cut, has been under cultivation nine years, and has never been manured.

Ottawa River, 100 miles above Bytown.—*Bathurst Courier*, Oct. 26th, 1841.

Died—The Canadian Farmer and Mechanic which we noticed last month, is said to have died—from want of care and nourishment.—*Genesee Farmer*.

“What should a Farmer be?”

A FARMER SHOULD BE INDUSTRIOUS.—In no department of life, without industry, can any thing valuable or important be achieved. There is such a thing as an idle farmer, a true idler, and a pity 'tis 'tis true; but an idle, successful farmer, is something the world has not yet seen. No where is persevering industry more indispensable than on the farm, and no where is well directed labor better rewarded. When we say the farmer should be industrious, we do not mean he should be a slave. There is, among some farmers, perhaps a majority at the present time, a feverish anxiety to become rich, a disposition to go ahead, which renders rest impossible, and hardly allows time to eat or sleep—such men are subject to a task-master of the most imperious character, and one from which they should make no delay in freeing themselves. The farmer can have, and he who manages his affairs well, will always have, his hours of relaxation—hours to spend with his friends, and hours to devote to the improvement of his mind. The way to ensure this, is always to be beforehand with the labor of the farm, and never allow himself to be crowded.—More work should never be laid out than is compatible with this rule, and the work that is required to be done to-day should never be deferred till to-morrow. The difference in the case with which labor is performed, when done in the right time, or when we are driven to it by urgent necessity, is so great, that attention to this point alone, would, in performing a given amount of labor, make a most material addition to the farmer's hours of rest and improvement.

A FARMER SHOULD BE ECONOMICAL.—Let the farmer labor as hard as he may; let him deny his soul and body every required good; let him abridge his hours of sleep, and toil from “morn till dewy eve,” without rest, or relaxation; it will amount to but little, unless his affairs are in other respects managed with economy. By economy, we do not mean that closeness or tightness—stinginess if you please, which some are pleased to call economy, but which is intally connected with meanness, and is one of the most effectual preventatives of all improvement, and the surest precursor of utter degradation that can be found in a man, and of all other things, is most out of place in a farmer. The great secret of economy, is knowing what is useful and necessary, and what not; of knowing when to expend and when to withhold expenses; in keeping our outgoes clearly within our income, and never purchasing what we can ourselves produce, or which a corresponding amount of our own labour will not procure; and in having every thing in doors and out in its proper place, nothing wasted or destroyed, but a general supervising care directed to every thing connected with our business at all seasons of the year. It is miserable economy to undertake to labor without the proper tools; to undertake to see how cheaply we can summer or winter our animals; or to see with how little knowledge and intelligence, or the means of obtaining either, we can contrive to plod along through life.

A FARMER SHOULD BE INTELLIGENT.—It is an old and true maxim, that “the ignorant of the day excuseth no man.” It is not true of any topic necessary to a proper management of his business, or to his proper standing and influence in the community, that may be pleaded by the farmer, who is ignorant of anything necessary to a correct management of his means within the reach of his power. Knowledge is less than a man's power, and the accumulation of the fruits of his industry is a sure proof of excellence in his management. The first should be cultivated, and the second will come as a result of its cultivation. A farmer who is ignorant of the principles of agriculture, and who is not able to apply them, will never be able to improve his land, or to raise his stock to the highest state of perfection. He will be a mere drudge, and his labor will be lost to his country and his family.

connection with sound morals, is its surest preservative. Schools, books, newspapers, and journals of all kinds, have a wide circulation, and at a rate that places them in the hands of all who choose to think and investigate. Error cannot escape under the guise or plea of antiquity; and the stake and the pillory are not required to combat it in a land where reason is free to expose its absurdities, or plead the cause of truth. By this general diffusion of the means of knowledge no class has been more benefitted than the farmer, and none can have a deeper interest in its continued increase; and none should more freely and fully avail themselves of the means the laws have so liberally placed within their reach.

A FARMER SHOULD BE MORAL.—It has been said that “an undevout astronomer is mad,” and an immoral, profligate farmer is an equally decisive instance, of mental aberration. The owner of the soil; the producer and the possessor of the main part of the country's wealth; its defence in war, and its conservator in peace, the farmer has every reason to uphold a system not only right in itself but productive of prosperity and permanence, and frown down and repudiate every thing that has a contrary tendency. There is no surer index to the general happiness of a people, and stability and excellence of their institutions, than the tone of morals that exists among them. If the standard is high, private right is respected, the law is paramount, and property is safe; if the standard is low, power makes right, force is law, subordination prevails, persons and property are insecure, the temples of justice become the fountains of bribery and corruption, prosperity passes away, and society resolves into its original elements. There is always in every country a mass of persons, idle and profligate, who herd together in cities, and who, having nothing to lose, are always ready for every innovation, or every disturbance that threatens convulsion and overturn, as in the general scramble they may obtain plunder and power. The farmers have always been found the firmest supporters of order and law, and if they have ever been found arrayed against either, it has been because ignorance fitted them to become tools of the unprincipled and the designing.—Albany Cultivator.

From an English Work by A. Walker. Cattle.

The best cattle have the face rather short; the muzzle small; the horns fine; the neck light, particularly where it joins the head; the chest wide, deep and capacious, the tail broad and flat towards the top, but thin towards the lower part, which it will always be when the animal is small boned; the lower part of the thigh small; the legs short, straight, clean and fine boned, tho' not so fine as to indicate delicacy of constitution; the flesh rich and mellow to the feel; the skin of a rich and silky appearance, the countenance calm and placid, denoting the evenness of temper essential to quick feeding, and a disposition to get fat.

Every breed of animals which has thro' a few generations (two or three is sufficient) been bred, requires similar feeding; and the offspring of such animals require and can digest more food than others, who have lived upon it.

All growing animals, including mankind, should be sufficiently well fed to preserve health and strength, but never to be stimulated by excess of food. The children of parents who have through many generations well fed, would perish if given more than what would be sufficient for an Irish or Highland Scotch peasant's child.

The chief qualities sought for in cattle, are the ability to fatten on little food, and the habit of eating a large quantity of rich milk. The latter quality is cultivated chiefly by the

capacity of the chest. Animals of all species, says Mr. Knight, all other qualities being equal, are, I think, capable of labor and privation, and capable of fattening nearly in proportion as their chests are efficacious, but the habits of ancestry will operate very powerfully.

It is the width and depth of frame, says Mr. Berry, which confers weight, and not the mere circumstance of great height. While equally great if not greater weights can be obtained with shorter legged animals, they are, independent of other recommendations, generally found to possess better constitutions and greater propensity to fatten.

Mr. Knight says, the constitutional disposition to form fat, is certainly hostile to the disposition to give milk. Cows which give little milk often present large udders, which contain much solid matter; and, to inexperienced eyes, a two years old Hereford cow would give a promise of much milk, where very little would be given. A narrow forehead, and a long face nearly of the same width from end to end, as in the Alderney cow, certainly indicates in me disposition to give milk than the contrary form which I have pointed out as indicative of a disposition to fatten.

Fat animals are more generally those of the north where the cold diminishes sensibility. Fat indeed, appears to be means which nature very extensively employs to lower sensibility, by interposition between the skin and central parts of the nervous system. Fat animals, accordingly have not only less sensibility and irritability of the skin, but of the organs of sense generally. Thinner animals, on the contrary, are more generally those of the south, and have more acute sensibility and exquisite sensation.

Cows which give much milk have the power of eating and digesting much food, and they require, whilst they give much milk, a very abundant and good pasture. The milk of cows which give less milk, and present greater disposition to become fat, is generally less nutritious, and will fatten a calf less. The influence of the feeling is very considerable. I have observed that whenever a young Hereford cow disliked being milked by the dairy maid, she soon ceased to give milk; and I do not doubt that in all cases, if the calves were twice every day permitted to suck after the dairy maid had finished her labor, the cows would longer continue to give milk, and in larger quantity.

If this led only to distinction of these two kinds as to milking, namely—that of fatness and thinness and that of smaller and larger organs of sense, and greater or less sensibility, it would still be valuable, as showing, either at a later or an earlier period, what we may expect in this important particular. But perhaps its utility may extend still further, and enable us to improve the race.

It may form a basis for our determining whether, on endeavoring to improve a breed, fatteners may most easily become milkers, to some extent; or milkers, may, to a similar extent, become fatteners; and what are the circumstances which would most favor such partial interchange, if not absolute improvement! Indeed, from these principles, I would conclude, that an animal fattening in the north, where a more general temperature would render fat less necessary, would increase sensibility, and would cherish the secretion of milk so intimately connected with that excitement of the re-productive functions which warmer climates produce.

As these two desirable qualities are both dependent upon one system, and as they are opposed to each other, (for excess of one secretion is always more or less at the cost of the other,) they will be most easily obtained by being distinctly sought for, and the animal of diminished sensibility will most easily fatten, while the animal of increased sensibility will most readily yield milk.

These views are confirmed by the conduct of the London dairy-men. While they acknowledge that the Alderneys yield the best milk, they keep none of them, whatever they may pretend, because these animals are particularly delicate, and more especially because they cannot, after being used as milkers, be fattened for the butcher. The York and Durham cows suit them best.

In certain constitutions, however, and to a certain extent, there is a compatibility between fattening and milking.

Mr. Knight says, the disposition to give much and rich milk, and to fatten rapidly, are to some extent at variance with each other; but I have seen cases in which cows which have given a great deal of rich milk have given birth to most excellent oxen, the cows themselves, however, always continuing small and thin whilst giving milk.

I very confidently believe in the possibility of obtaining a breed of cows which would afford fine oxen, and would themselves fatten well; but as great milkers require much more food than others, the farmer who rears oxen, does not think much, perhaps not enough, about milk, and is in the habit (which is certainly wrong,) of breeding his bulls from cows which have become his best, owing only to their having been bad milkers.

In the selection of bulls, besides attending to those properties which belong to the male, we ought to be careful also, that they are descended from a breed of good milkers, at least if we wish the future stock to possess this property.

Water Rotted Hemp,

Being worth considerable more in market than dew-rotted, we insert the following instructions from the Kentucky Farmer:—

The first thing to be done in making preparation for the business of water-rotting hemp, is the formation of suitable vats or pools. These will generally be most conveniently and easily made upon some small stream of water. A small stream constantly fed by a few good springs is recommended; because, having once filled the vats, it will afford an ample supply of water without subjecting the farmer to the inconvenience and injury which a large and rapid stream would obviously occasion, both by its deposities of mud upon the hemp, and the violent action of its current on the embankments of the vat. A solid limestone bottom is an advantage, contributing as it does, to the cleanness of the business. Our numerous small streams or "branches," afford us the opportunity of selecting a site combining all these advantages. In selecting a place for the vats, it would be better to choose a position to the North-east of the dwelling-house, so that our prevailing South-west winds may carry off the unpleasant, if not unwholesome effluvia arising from hemp as it rots. Having, on consideration of all circumstances made choice of a site, the vats should be dug about 3 feet deep, and should be about 6 feet long, and 40 feet broad. These dimensions may, of course, vary at pleasure; but this size would probably be most convenient, as it could be filled or emptied by two hands in one day. Such a vat would hold the produce of about two acres of hemp of an average quality. Several vats would probably be necessary; and if so, they should be dug adjoining each other, leaving only the embankment as a passway between them.

Having dug the vats, an outlet should be formed for the stream, by opening a channel over the lower embankment some five or six inches deep. The bottom of this channel should be covered with plank or stone, to prevent the injurious action of the current. Nothing remains to complete the vats except to make a platform large enough to hold an ordinary slide and two persons, across that spruce of the vat nearest to the field on which

you intend spreading the hemp when taking from the vats.

Having thus completed the vats, a quantity of plank about 8 inches broad, and about 10 feet long, should be procured, sufficient to cover the vats, leaving spaces of about one foot in width, between the two rows of plank. A large quantity of stone should also be quarried and hauled to the vats. The plank and stone are to be used as hereafter directed, for the purpose of sinking the hemp in the water.

These preparations being made, the farmer will be ready to begin the operation of rotting the hemp, as soon as it has been cut and slightly cured. If he has laborers enough employed to cut his hemp in proper season, and to haul it to the vats, to put it in, take it out and put it in every six or seven days, he may save entirely the expense and trouble of stacking it. I will suppose, however, that the farmer has only such a force as will enable him to cut and stack his hemp, in proper time and in the usual manner. In this event, he must be careful not to permit his hemp to be blackened by rains before it is taken up and slackened; as this is thought not only to destroy the favorite color of water-rotted hemp, but to injure materially the strength of its fibres. Having been engaged some 3 or four days cutting hemp, the farmer should have all the hemp which is sufficiently cured, carefully tied in small straight bundles, and stacked in the usual manner. The whole crop should be cut, tied, and stacked in this way.

As early as possible after securing his hemp, the farmer should begin the business of rotting it. This is important, because that has much influence in hastening the process of rotting. In warm weather, the hemp will be ready to take out of the vats in five or six days; and will not swell so badly, whereas in winter it will sometimes require two months immersion in the water; and the business of filling and emptying the vats and spreading the hemp will then be most laborious, unpleasant, and unhealthy. This, any one can understand, by imagining himself engaged, on a raw cold day in January, in breaking the ice over a vat of hemp, which has been slowly rotting for sixty days; in lifting out the astonishing heavy bundles of this 'putrid mass,' and then spreading it wet, cold, and stinking on the ground. It may with more propriety be said that in summer, or fall, the gum which causes the fibres to adhere to the stalk is dissolved, than that the hemp is rotted by the heat and water.

The first operation, when the farmer is ready to begin rotting his hemp, is to haul it to the vats. Carts are the most convenient vehicles for this purpose, as they can be at once unloaded by tilting up. Two hands with two carts should work together, as one should stand upon the stack while loading and hand the bundles to the other on the cart. A light but strong frame, should be fitted on the cart body, extending about 18 inches wider on each side, and 2 feet longer at each end than the body. It may be made by any one with a saw, auger, and hatchet. Take two pieces of scantling about 6½ feet long, to lay across the cart body before and behind; pin to the end of these, two pieces of wood or plank long enough to extend two feet before and behind the body, and connect the ends of these two last mentioned pieces with strips of plank, and the frame is complete. Pins put into the cross of the scantling, will keep the frame steady and prevent it from slipping on the body. It is astonishing how much more hemp or hay can be carried on these frames, than on cart bodies without them. Any farmer will be well paid for the trouble and expense of making them.

Two hands will generally put the hemp in the vats as fast as two will haul it. Those engaged in putting in the hemp, should proceed as follows:—Beginning on one of the

sides opposite the platform, they should take the bundles of hemp and lay them down side by side in the water, the buts next to the bank, and the points straight out into the vat. Having laid down one row, begin as before, and lay another on top of the first, exactly in the same manner as before, except that the buts should be one foot further in the vat.—When the 2nd row is completed about one foot of the buts of the 1st row will be visible and the points of the 2nd or upper row will extend about one foot beyond the 1st. Lay down a third row, putting the buts about one foot further than those of the 2nd. When three rows have been laid down, lay plank across them and the laborer can stand upon it and put down other rows. In this manner, putting down three or four rows, and then laying plank across, the whole vat may be filled, without the laborer being under the necessity of wetting even his feet. The whole operation strongly resembles the mode in which shingles are placed upon a roof. A bulk of hemp, three or four bundles deep, will, when crossed with plank, form a raft which will support a man.

The distance that the buts of one row projects beyond those of the adjoining row, should vary to suit the depth of the vat, the length of the hemp and size of the bundles. If the hemp were seven feet long, and the but ends of each row showed one foot, then it is evident that the vats would be filled with a bulk of hemp six bundles deep, which would probably average with ordinary bundles, about 3 feet in depth when first put in, but which would be diminished after laying in the water sometime. Any one however, will soon learn to apportion this so as to suit the depth of the vats and the quality of his hemp.

This arrangement of the bundles of hemp in the vats, will evidently leave the tops at the bottom of the vat, and the buts at the surface. This is proper; because the buts being more difficult to rot, should be placed nearer the surface where the greater heat of the water expedites the process of decomposition. A uniform and regular rot is the consequence of this mode of arranging the hemp in the vats.

Having thus put in the hemp, and of course having crossed it with plank, the next operation is to sink it just to the surface of the water with stone. It had better be slightly above than below the surface, because as soon as saturated with the water it will sink lower. The stone should not be larger than one man can readily carry, because the necessity of having two men to lift one stone, would accumulate so much weight upon the different plank as they walked over them, as to sink them in the water. The laborers cannot with such large stone 'weight' down the hemp as soon as with smaller, nor can they escape if they use such with dry feet. For the same reason logs of wood are still more objectionable. In 'weighting down,' carry the stone to the farthest plank first, and sink it sufficiently, than the next, and so on in succession till completed. This mode will evidently permit the laborer to keep himself dry, by stepping on the unloaded plank, while carrying stone to the farthest.

Having in this manner sunk the hemp in the vats, it will require no additional labor till ready to be taken out, except that the farmer should by any means neglect seeing that the hemp is completely immersed in the water. This may not be the case from two causes. First, the weight of stone may not be sufficient, in which case the remedy is obvious, and secondly, the water may not be enough to cover all the hemp which being weighed to the bottom, is stationary. The remedy for this, should be found in the proper construction of the vats. The outlets for the water should be some five or six inches below the upper surface of the plank and

so that in an emergency (such as that suggested) by making a little dam across the outlet, you may be able to raise the water as much as desired. This accident of putting in more hemp than can be sunk in the vat, should not, and with proper care will not often happen. It is, of course, best that the whole mass of hemp should float, neither resting on the mud at the bottom nor yet so buoyant as to leave any part above the water.

In warm weather, after four or five days, the farmer should carefully examine the hemp every day until he ascertains that it is sufficiently rotted to take out. This he knows to be the case when the hemp has entirely lost its roughness to the finger, when moved along the stalk; and has become smooth, soft, and oily or slimy in feeling. Having reached this point, preparations must be immediately made for taking it out. For this purpose you will need six hands, to wit: two at the vats, two to drive, two common slides, and two to spread the hemp early upon the ground.—The stone is first removed from the whole vat, beginning, of course, with that which is on the nearest plank, and then standing on that to take the stone off the next, and so on in succession. Having removed the stone, you next remove several planks next to the platform, on which has been previously placed on one of the slides to which one yoke of oxen are hitched. The slide is so placed as that the end shall be, just opposite the water, leaving very little space between it and the water, a bundle of hemp is then floated alongside the platform and opposite the end of the slide. The laborers on each side of the slide then take hold of the bundle of hemp, and lifting it gently out of the water, place it across the slide. A hook or short forked stick, resembling such as farmers use in raking up hemp, will enable the two hands at the vats to take the hemp without tangling or breaking it. The weight of a bundle of hemp when just taken out is astonishingly great, and a very few will make a load for the slide. The first slide when loaded is driven off, and the second placed upon the platform, continuing thus to take off the plank as fast as the hemp is removed; it is evident that the whole may be floated to the platform, by persons walking on the embankments or remaining plank, and be taken out with the assistance of hooks without necessarily wetting the laborers.

The hemp is carried on the slide to the place where it is to be spread, and the driver lifts the bundles off the slide at such distances apart as when spread will cover the whole surface of the field. The 'spreading' is the most unpleasant part of the business. The next day, it should be turned over, which can readily be done by running a rod or small pole under the points of the hemp, and throwing it over, thus causing the tops of the hemp to describe semi-circles of which the butts are the centres. For the purpose of preventing mildew and unequal rotting, it is very important that the hemp should be turned over as soon as the upper surface is dry, and as this is but very little labor, should never be omitted.

The hemp should remain down two or three weeks. Several rains falling upon it will improve the quality of the hemp and change it. Unless suffered to lie some time on the ground, the fibres become glued to the stock, rendering it so difficult to break, that under this system of management, I am informed the ordinary task of an able bodied man was only from 50 to 70 lbs. per day. This error among others in the management of hemp when taken from the vats, causing such difficulty in breaking, no doubt in a greater degree led to the abandonment of the business by those who were some years since engaged in rotting hemp.

After lying two or three weeks on the ground, the hemp is taken up dry, and carefully 'stocked' up till well worth for break-

ing. Ninety pounds per day was the task given by Mr. Charles B. Lewis, to good hemp breakers, but 120 to 170 lbs. were frequently broken.

I have thus endeavored, in the plainest manner to give you the system adopted by Mr. Lewis; nor have I any hesitation in expressing the belief that his management of hemp in most particulars was correct. The hemp which he prepared, for Mr. David Myerle last year, was of the finest quality, and did not when delivered at Lexington cost \$10 per cwt. *all expenses paid.*

Having had no experience myself in the business of water-rotting hemp, it is by no means improbable that I may have erred in some of the numerous details of this business, if so, I will take occasion hereafter to correct all errors.

Geo. W. JOHNSON.

(From the Albany Cultivator.)

Canada Thistle.

Have you Canada Thistles, whether plenty or few,
And would wish to destroy them as no doubt you do,
Hed well the directions a friend would here give,
And not prick your fingers as long as you live;
But pulling, by plowing, by grubbing or hoeing,
Regard not the method, by cutting or mowing,
But repeat it as oft as a shoot can be found
Over three inches high at a time, above ground;
Don't stop at one cutting, nor count them as slain,
For in ten or twelve days they'll want cutting again.
Persevere my good friend (for I tell you no lie),
And in two or three years they'll all bid you good bye.



Canada Thistle Forceps.

The Canada thistle is a perennial plant, and will thrive well on any soil where there is not a superabundance of water; and it will come to maturity long before grain or grass, which may be growing on the same ground. Therefore it will not do to let both grow, until both are ripe, if we wish to destroy them, but they should be mowed, before they blossom, when it is not convenient to use the plow. But in fields where there is no grain, they should be plowed, commencing in the spring, and keep them down until the hot and dry weather, when two or three times plowing will completely eradicate them, and destroy them root and branch.

To cut them with a hoe and salt them is a very good way, but plowing them is far more effectual, and consumes less time and labor. We have succeeded in destroying many large patches, simply by plowing them three times in hot weather, when there is scarcely any moisture on the ground. And we have destroyed many by the application of the pomace of apples, applied about two inches (one inch is sufficient) which proves the most effectual of any way or thing that I know of. It will destroy any weed to which it is applied, and even elder bushes, thorns, &c. But among the various modes, there is one which I am sorry to say, is known to but few throughout the United States; and that is pulling them with the forceps, of which every farmer should have two or three pairs. They are easily made—the cost is comparatively nothing—a

man of small mechanical genius, will make a pair in an hour and a half—and when they are finished, they are worth about eighteen pence.

The design of these is to pull thistles where there are but few, as in grain, when a hoe could not be used without destroying much grain. In soft ground, we have pulled them with roots eighteen inches long and upwards; and faster than they could have been cut up with any instrument; and going over the ground twice, as there will always some come up after the first pulling, we have destroyed very many. These like all other implements, which belong to the farm, should be made in the winter, when business is not urgent, so as to be ready when they may be wanted. Therefore I present you a cut, and the dimensions of a pair which I made, and which kind is used extensively in this vicinity.

The whole length is two feet and a half, cut out of inch and a half plank, with the grain running lengthways of the crook, in order to prevent their slipping off. The length of the jaws four inches, and an inch and a half thick. Where they cross they are secured by an iron bolt one quarter of an inch in diameter, with a nut to fasten it. They should be made of good timber, and of a natural crook if it can be found. These forceps will be found to be of great use in pulling thistles out of oats and spring wheat, in the former part of the season, when the soil is well saturated with water; and at any season of the year they will be found to be of greater use, than either hoe or sythe. Farmers, try them: and satisfy yourselves, and wait the result.

Tompkins Co. N. Y. Sept. 1841.

ORSON CARDIN.

Agricultural Report for November.

From the Montreal Gazette.

Agriculture, instead of being encouraged and reasonably protected, as I humbly conceive it ought to be, has been altogether neglected. If agriculture does not require encouragement and protection here, where labour is high and produce cheap, it is not necessary in any other country on earth. The free trade system, in the produce of other countries, may benefit a few in Canada. It would, in my humble judgment, be our duty to encourage the improvement of our own occupied lands to the full extent they are capable of, and then, if we find they will not yield a profitable produce, we may leave them to grow thorns and thistles, and resort to foreigners for what we are unable to produce ourselves. Let us, however, first give our own fine country a fair trial, and I maintain that the soil and climate of Canada will prove, under judicious management and encouragement, to be capable of yielding a most valuable and profitable produce. If this opinion be correct, can it require any argument to prove, that it would be the interest of a vast majority of this community, that Canadian industry should be fostered and encouraged, in preference to that of foreigners? If the agricultural class in Canada should become wealthy, they will expend that wealth here. Not one shilling of it is likely to go elsewhere, except for the purchase of British manufactures. This is not always the case with other classes. It is not by any means so certain that their profits and accumulations will be expended and remain in Canada. We want capital here, and the produce created by our lands and labour, is at present almost the only capital that is applied to reproduction and improvement. Consequently, while this produce is short, and the value greatly reduced by foreign competition, we need not expect our agriculture to be in an improving and prosperous condition. On the contrary, it will be getting worse every year, as the land will become exhausted for the want of capital and labour to maintain its fertility, by

manure and judicious cultivation. It will every year become less capable to yield a valuable produce, to be again applied to improvement and reproduction. I know that this cause operates at present most injuriously, and checks general improvement in agriculture. Heretofore wheat was the chief dependence of Canadian farmers, but since they have been unable to grow it, they have no means now at their disposal to employ labour, or capital to expend in the improvement of either land or stock. This is the general complaint.

In passing through the country, it is easy to discover the want of capital by the mode of cultivation, and the great want of draining. When we hear of the amount of capital considered necessary in England to cultivate and stock a farm advantageously, it is no wonder that our cultivation and stock are so very deficient and defective, when there is not perhaps a farm in Canada, where one third the capital is employed, that would be required in England. I only refer to our farmers, who depend altogether upon farming for their living. From seven to ten pounds per acre capital, is considered necessary in England to work and stock a farm to advantage—the larger amount for strong clay lands, as requiring more labour of men and horses, and the wear and tear of implements, being much greater than on lands of higher quality of soil. If capital and labour were at our disposal here, we could not employ it safely to a large extent while exposed to a foreign competition. We have no manufacturers here to be our customers or who would be injured by the farmers being protected. We have the means of raising all the food that would be required for more than double the present population of United Canada, if reasonable encouragement and protection were only offered us. If it is not so, who would encourage emigration to Canada? A large emigration cannot find employment and prosperity here, if we are only to be trafficking in the produce of a foreign country. If we can raise food for our own population we can raise food for double that number. We have sufficient arable land occupied to do so. The question is—whether our soil or climate ought to produce wheat, other grain and cattle? If this be answered in the affirmative which it must be, no man acquainted with the country but will admit, that it is capable of producing two or three fold the quantity annually of each of these products, that it does at present, I only refer to the land already cleared. I do not include our forest land of almost boundless extent. I have on former occasions, suggested the expediency of introducing new plants into our agriculture, that could be exported, and that might be cultivated here successfully, if proper measures of instruction and encouragement were given. Nothing, however has been done. May we hope that the interests of agriculture will, at last obtain some attention—that inquiry will be made to ascertain its true state, and the best means to promote and secure its improvement and prosperity? The present Government is favourable to English agriculture. Any favor that will be extended to their fellow-subjects—the agriculturalists of British America—will never injure the British farmer. On the contrary, the favor that is necessary for us, will serve the British agriculturalists. This may be doubted by some, but I think it is capable of being satisfactorily proved. Dr. Bowring, at a late anti-corn law meeting, told the people that the landholders of Britain only paid a million and a half of the annual taxes—and a more mistaken idea was never conceived or entertained by an M. P. But whatever the learned Doctor may have said on the occasion referred to, there cannot be any mistake that our chief dependence must be upon the natural or cultivated produce of Canada, to pay both our taxes and all other demands

upon us. Our imports may pay our revenue in the first instance, but it is the consumers of these imports that must ultimately pay both the revenue and cost of the goods, and it is out of a produce raised in Canada that this must be chiefly done. It is, therefore the interest of all this community, that every encouragement should be given to Canadian agriculture. If the country is incapable of profitable farming, it is not worth living in, or retaining as a part of the British Empire. If the chief object of our improvements is to enable us to be the conveyers of foreign produce, we may despair of seeing this naturally beautiful and fertile country settled, improved, and productive, as it certainly is capable of. Doubtless the money expended in the improvement of our internal means of communication, must be a great benefit to the country, but as an agriculturist, I would be anxious to see our agriculture improving at the same time in order that we may have a valuable produce to transport upon our fine roads, canals, rivers and lakes; otherwise they will not be of much use to agriculturists, comparatively. WM. EVNAS.

SELECTED.

REMEDY FOR FILM IN THE EYE OF A BEAST.—A correspondent of the Yankee Farmer, suggests what he considers a new remedy for a film produced by a blow or other accidental causes of a similar nature, i. e. spitting tobacco juice into the eye of the animal. He remarks that he has seen it tried only twice, but each time with entire success; and with very sensible caution concludes, by saying "the remedy requires to be more fully established." We can assure our cautious friend, that the remedy has been fully established down South for years. The memories of our oldest tobacco chompers, reach not the antiquity of its discovery. We have often seen tobacco juice spit in a horse's eye when weeping or looking weak, and entire relief afforded.

SECRET OF SOAP MAKING.—Many persons are much troubled to make soap come: but there is no art and mystery or "luck" about the business. The whole secret consists in having strong lye—and it must be strong. If the ashes are clean, the soap will come without using lime. If the ashes are made from dirty chips, or burnt on a clay hearth, lime in the leach at the rate of one quart to the barrel of ashes, may be used to great advantage. If lime cannot be procured, boil down the lye until there are coarse grains of salts in the bottom, then pour off the lye and throw away the salts. It will "spoil your luck" to attempt to make soap with the salts in the kettle for it is the salts of the earth, not ashes. If your lye is strong, and you put in as much grease as it will dissolve, you will have soap whether it is put in hot or cold.

CHARACTERISTIC OF FARMERS.—Farmers seldom affect a mystery of their agricultural operations, as is the case with most other occupations. A farmer is always free, ready, and communicative—and this has been the characteristic of the husbandman from time immemorial. It is related of Ischomachus, a complete husbandman, described by Xenophon in his economics, that "all other tradesmen are at great pains to conceal the chief parts of that art. But if a Farmer has either sown or planted his fields with care and propriety, he is happy in having them inspected, & when asked, will conceal nothing of the manner by which he brought his works to such perfection."

PORTABLE GRIST MILL.—By Mr J. Platt, of Bridgport, Conn. This mill is so small and compact, that it may be carried from one place to another in a common cart; yet is capable of grinding from six to eight bushels of corn or grain per hour. The bed-stone is solid, having no eye in its centre, and the

running-stone is hung on a short cross on the lower one of a vertical spindle, which has two bearings in a vertical sliding from above, by means of which the running-stone is elevated or depressed as occasion may require. The pulley by which the motion is given, is mounted between the horizontal bars of the sliding frame. The operation of this mill is so free that it may be driven by the power of one horse, and is probably the best mill for Southern and Western farmers, that is now in use. The cost varies from \$50 to \$100.

A PORTABLE SAW MILL.—Invented by Mr George Page, of Baltimore. This invention requires no higher praise than a brief statement of facts. It is in complete operation, and will saw 1,800 feet of boards per hour, with excellent precision, and very smooth, yet without heating the saw in the least.—One prominent excellence in this invention, is the manner of mounting the circular saw, by which it is completely secured from liability of becoming heated, even when sawing timber two feet in diameter. The whole machine is portable, and has in one instance been removed a distance of ten miles, and put in operation in its new location in one day; and such is the facility of managing it, that when one board is finished, the log is run back and adjusted, or another cut in ten seconds. This mill is of simple construction and must succeed well.

TO DRIVE AWAY RATS.—Boil a strong decoction of tobacco and pour it hot on the places where they are at work. The rats will not eat wood saturated with tobacco juice.

LIME YOUR ORCHARDS.—The effect of lime on orchards and on grounds in which fruit trees are planted, is stated to be very beneficial; it improves their health and promotes their growth and it is said to improve the quality of the fruit. The food or pasture of the trees is increased in quantity, and improved in quality by the application, and it is doubtless an important agent in destroying the grubs and worms which are so destructive to fruit trees by the wounds which they inflict, as well on the tender absorbent fibres of the roots, as on the branches and trunk.

LAW'S PLANING MACHINE.—This machine has much novelty of construction, and may be said to be a new application of first principles of planing, and leaves the surface of the board in a very smooth and perfect state. By this machine, a plank, or board of any length or breadth, is by a curious application of power, forced through a series of cutters, by which both sides and both edges are planed at the same time, being reduced to a uniform thickness and width, as a matter of course; and such is the rapidity of the operation, that six thousand feet of surface may be planed in one hour.

AN IMPROVED PLANING MACHINE.—By Samuel Whitney of Nashua, N. H. This machine is exhibited in miniature, and is probably the first operating model ever constructed. This model is of itself a great curiosity, and being operated by hand will plane a miniature plank to admiration.—There is much novelty in this plan; the motion of the cutters is horizontal and rotary. Its operation is more perfect than that of those which have either vertical or diagonal motions. This curious machine, although small, attracts some attention, and in many respects is decidedly preferable to other kinds.

Suffer not your spirit to be subdued by misfortunes, but, on the contrary, steer right onward, with a courage greater than your fate seems to allow

From the Albany Cultivator.

Winter Butter.

There is scarcely one operation of the dairy more important to the farmer, than the manufacture of good butter; and in the winter time, experienced dairy-women are frequently disappointed in their endeavors to procure it.

My plan now used in my family with perfect and invariable success, was adopted from seeing its practical operation in the winter of 1825, in the family of Dr. Jones, of Halifax county, Virginia. Mr. Fessenden published an account of it in the first edition of his "Complete Farmer," in 1831; and having seen many plans recommended in agricultural journals during the present winter for making good butter, of rather an equivocal character to my mind, I feel persuaded that the method now in use by my family would prove a great saving in labor and cream, wherever adopted.

The process is simply this: As soon as your milk is brought in, strain it into tin pans or pails, of a suitable size, and set them upon hot coals, or when convenient, upon a cooking stove, and allow the milk to heat gradually until the temperature is nearly up to boiling heat—from 130° to 150° Fahrenheit will answer. Then set them away and allow them to stand forty-eight hours. By this time the cream will rise in a thick leathery coat, and in quantity and quality that will surprise any one who has never before made the experiment. Take it off and churn it by stirring with a wooden paddle, which is our method, or in any other convenient manner, and the butter will be produced immediately, and of the finest quality and flavor. The cream is perfectly separated from the milk by this method,—perfectly sweet, and there is never any disappointment in the speedy manufacture of the very finest quality of butter; and it gives more butter from the same milk than we have ever been able to obtain in any other way.

Cream may be rendered oily by heating, and the butter entirely spoilt in flavor by heat, at a much lower temperature than I have suggested; but new milk will bear heat to any degree short of boiling, without the least injury to the cream which subsequently rises.

It has made my heart ache to see an industrious woman stand three or four hours over a churn, to be rewarded in the end, perhaps, by an indifferent turn-out of ill-looking butter of a doubtful flavor, and I trust I may be excused for urging the trial of this method upon every one who may not already become familiar with it. The quantity and quality of the butter will be increased, and the labor of producing it most essentially diminished.

Respectfully your friend,

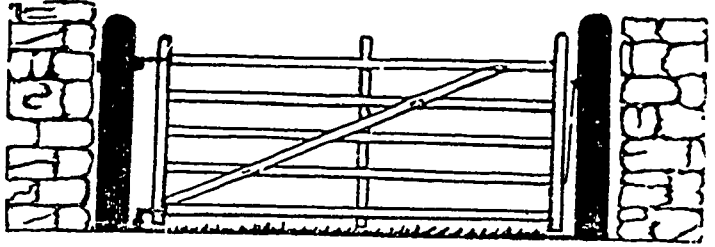
WILLIAM S. WAIT.

N. B. For the convenience of heating milk in vessels adapted to that purpose, it may be well to state the fact for the benefit of those who may not already be acquainted with it, that all the cream will rise from milk as speedily and effectually when set away in a deep pan or pail, as in a shallow vessel,—and the process of skimming rendered more easy and convenient.

Grenville, Ill. Feb. 3, 1811.

Stores, for heating rooms, will throw out much more heat for the amount of fuel consumed, if, as soon as the wood gets well burning, the draught below and above the fire, is closed. Far less heat is swept by the draft up chimney. On this principle, the blacksmith increases the heat of his forge, by sprinkling water upon the ignited coals, and preventing the flame from rushing out; and also, green wood on a common fire often prevents the rapid escape of heat up the chimney, for a similar reason. All stores should therefore be provided with a valve above as well as below the fire.

GATES, FENCES, &c.



It is an old adage that "a man is known by the company he keeps." So the provident farmer is known by his gates, fences and out-buildings; to find them in good order and repair is evidence of thrift, and gives character and a favorable opinion of the proprietor.

"Show me," said a valued friend, "good fences, gates and out-buildings—fields free from brush, briars and weeds, and I will show you a good farmer."

To illustrate this, I will relate a circumstance that occurred while myself and son were riding through the east part of Saratoga about one year ago. It was in a section of the country new to both of us; of course the inhabitants were all strangers. After passing several farms which had the appearance of being pretty well managed, and many which appeared the very reverse, we came to one which attracted my attention, and I said to my son, "This man takes and reads an agricultural paper." "Why do you think so?" said he. I pointed to his fences and gates for an answer, and as we approached his dwelling other evidences were so apparent that I proposed to make him a call. Unfortunately for us he was absent, but we found one of his men who was kind enough to show us the stock and improvements, all of which strongly confirmed my first impression.

In his yard we found a fine Durham bull, for the improvement of his cattle; and his pigs were a cross of the Mocha and Berkshire breed. His piggery was on a new plan intended for the double purpose of fattening his swine and cattle. It was in the basement of his gran barn, near a cellar in which he stored his roots. The basement also contained his horse power, with which he thrashed his grain, and ground his apples and vegetables for his stock. Near to this he had two cauldrons set in arches, in a house where the food was cooked for his hogs.

His pens were about 4 foot wide and 10 ft. long. In each pen from two to four hogs are fattened in the fall, and when slaughtered, their places were supplied by bullocks, each pen forming a very comfortable stall for one animal. In addition to the usual fixtures for swine, he had racks erected for hay, and the troughs answered for mangers in which grain or roots could be fed to cattle.

Every step we took only increased our regret at the absence of the proprietor, from whom we were confident we could receive much information.

We were informed, by his man, that he was attending an auction about four miles distant on our road home. I was determined, if possible, to ascertain whether I was correct in my opinion or not. After considerable search I found him, and did not hesitate to approach and enter into conversation with him at once.

And here I would remark, that I have never yet met with a farmer that had imbibed a spirit for improvement, that did not receive me with cheerfulness and a hearty welcome. After some conversation on "matters and things" appertaining to our profession, I put the following question to him: "What agricultural paper do you take?" "The Cultivator and Genesee Farmer," was the reply.

To show the importance of gates in another point of view, besides convenience, I will relate another circumstance that occurred

last fall. I was in search of a person in an adjoining town, and was directed to take a particular road and turn into the first "swing gate," which I found without difficulty, and could not but remark that it was the only gate I saw in that section.

CALEB N. BEMENT.

Three Hills, Feb. 1840.

Wintering Sheep.

It is commonly considered more difficult to winter sheep, than most other domestic animals, and this is doubtless true to a certain extent. But in nine cases out of ten, the want of success is owing to bad management, which is generally misnamed ill luck. Sheep, in order to bear the winter well should first of all be prepared for it by being kept in good condition at the commencement. About the 1st of December, instead of being left to roam over the fields, to obtain food from the scanty herbage, they should be entirely fed on the preserved growth of summer. Little nutriment can be found in grass at this season—besides, what now remains should be left to prepare it for an early and vigorous growth in spring.

There is one subject which has as yet received but little attention from our farmers—it is that of providing suitable sheds for the protection of sheep from the winter's cold. Now we are aware that many farmers consider this as wholly unnecessary, and believe that sheep, with their thick coats of wool, would be no more benefited by shelter, than the down clad animals of the Arctic regions. But this is a great error. Who has not observed them, on the approach of severe weather, carefully seeking what feeble protection they could obtain from the storm, by the side of stacks, or under open fences? Would they do this, if it did not contribute to their comfort? Certainly not. Whatever, therefore contributes to their comfort demands attention, and whatever causes suffering to them, should be carefully avoided. But by constant exposure in open fields to storms and snow, they are almost constantly suffering in a greater or less degree, throughout the long months of winter. In those countries in Europe which grow large quantities of the finest wool, strict attention is given to this subject, and sheep are not only sheltered every night, but whenever the weather demands it, during the day; and this is also said to be essentially necessary in preserving the quality and fineness of the wool.

There are various methods by which proper sheds could be cheaply constructed for this purpose; the following description from Arthur Young may afford a useful hint to those who may wish to direct their attention to the subject. "The late Gen. Murray's standing folds enclosed an area of 57 yards in length, and 20 feet broad, containing 1,140 square yards. Above 700 ewes were folded in it at night, and for that number it is more than a yard and a half for each sheep. All around it was a shed nine or ten feet wide, and also across the middle, which latter was open on both sides. A rack of hay placed against the wall, which was boarded, surrounded the whole; and another, which was double, to be eaten out of on both sides, stood along the central shed; under the rack was a small manger, in which the food was given." In whatever way sheds are constructed, it is indispensably necessary that they be kept clean at all times; to effect this object, they should be frequently supplied with straw litter, which absorb all excreted matters from them, and form valuable manure.

It is a mistaken notion that water is not necessary for sheep—the fact that they always drink when it is supplied to them, proves that it is needed for the performance of the animal functions, to which it is requisite as in other animals.

Experience has also proved the correctness of this.

Not only sheep, but all domestic animals which exist in numbers, should be divided into parcels or flocks, and separated thus from each other; each flock to consist of those of nearly equal vigor and size; by thus the weaker one will not suffer from the domination of the stronger, but will all feed soke and do well. Particular care should be taken that old, poor and diseased sheep be separated from the rest, so that they may receive more attention, better feeding, and more careful shelter.

Thus, by commencing the wintering of sheep in good condition—by sheltering them from the severity of the weather—by supplying them with water—by affording the weaker the additional portion they need—and above all, by intermingling dry food with a proper quantity of root, &c. you save labor, and the difficulty will be experienced in sustaining them during winter in fine condition, without danger of the frequent losses, so often attributed to bad fortune only.

The following account of successful management of sheep, by a gentleman of Philadelphia, is taken from the Baltimore Farmer, and well explains the secret which many suppose the art consists in:—On Mr. Barney's late visit to this city, I on the question to him, wherein consisted his superior management of sheep? He gave the following reply: He said a good man visited him in his horse net, and on going to his sheep yard, and viewing it, asked him the same question. He showed it that to me, from fifty ewes, upwards of sixty lambs, all lively and brisk, with a loss, I think, of fifteen or thereabouts. The gentleman observed to him that he had his shed covered with dead lambs, and a ked whom the secret of breeding is. Mr. Barney observed to him, you stuff your sheep with dry food. Yes, as much good clover as they will eat, was the reply.—You give them no water, but suffer them to go out in time of drouth, and eat as they are disposed to do? Yes.—Then, said Mr. Barney, there lies the secret. Your sheep fills the ewes with dry food; they get no water; and they have not a sufficient quantity of justice juice, to promote the digestion of the food in their stomachs; they cannot resist, to chew the cud; they lose the appetite; are thrown into a fever; and continue bring forth their young, in the best of health, started lively, but fall off and lose in the first exposure to the cold and rain. On the contrary, I take care to provide my sheep with good clean water, as soon as I am winter. I feed them regularly, without any intermission, and give them a mixture of mangel-wurtzel and turneps. The ewes produce the 24 per cent. increase in lambs. You observe, says Mr. Barney, got along with turneps, mangel-wurtzel.—*Western Farmer.*

CATTLE SHOW AND FAIR, Of the New-York State Agricultural Society,

Held at Syracuse, September 29, 30, 1841.

(From the New York Cultivator.)

"Nothing could more satisfactorily show the interest which such anniversary exhibitions create, than the multitude of gratified spectators, variously estimated at from ten to fifteen thousand, principally farmers, from almost every county in the State, as well as the assemblage of distinguished agriculturists and other gentlemen from other States of the Union. Considered as a first Show and Fair of the Society, an experiment as it were, the meeting was an eminently successful one, although in some respects it cannot be doubted that succeeding ones will be superior.

In making the preparations for the Fair, too much praise cannot be bestowed upon the committee of arrangements at Syracuse, particularly Messrs. Burnet and Baldwin, whose exertions and efforts to do justice to all during the two days, as well as in the preliminary proceedings, were well directed and untiring. The same spirit was evinced by the public-spirited citizens of Syracuse generally; and pleasant associations in the minds of those who for the first time have visited that flourishing city of central New York, will doubtless long remain. The pens for the exhibition of animals were erected in a beautiful grove near the court house, and the court house itself was thrown open for the reception and exhibition of agricultural implements and products, and specimens of

domestic manufactures. The number and variety of these things, however, was such that the halls allotted to their use were found insufficient, and utterly unable to accommodate the crowd of visitors who wished to inspect and examine them.

On the day previous to the opening of the Fair, a train of 25 cars, filled with choice animals from the vicinity of Albany, and from the river counties, left Albany for Syracuse. The counties around paired in their animals, implements and produce, and on the opening of the Fair on the 29th, Syracuse presented a scene of gratified interest, and a thronging population, never witnessed, unless during the immense mass meetings of the political parties at that point in the autumn of 1841. The concurrence of farmers and mechanics, the producers of wealth, and the proud examples of the real dignity of labor was unexpectedly great; and with these came the amateur farmer, the professional man, and all who felt an interest in the advance and prosperity of agriculture.—The weather, during the two days of the Fair, was such as to prevent in a great measure the attendance of the ladies, although on high were present to show that in every thing that regards the public welfare, men may be sure of the cordial support and approbation of woman. The numerous and beautiful articles presented for exhibition, the evidences of female skill and industry, were much admired and elicited deserved commendation.

The first day was principally devoted to the examination of animals, implements, and articles presented. That as a first effort, some little irregularity and confusion should have taken place, that the committees should not have been as perfectly organized as they might have been, and that some mistakes in not properly naming some animals, or implements at the proper time, should have occurred, is not surprising, or to be wondered at; but the fine manner in which the whole came off, and the strong and general expressions of pleasure and satisfaction from all, showed that such mistakes were not permitted to mar the feeling, or disturb the harmony of the occasion.—The number of animals on the ground for exhibition was great; and taken in connection with those of the Onondaga County Society, which held its meeting at the same time and place, the collection has been rarely equaled at any Fair hitherto held in this country. We may remark here that great discrepancies appear in the reports of the proceedings furnished for many of the most prominent journals of our country, as to the numbers of animals present. These discrepancies are accounted for by the fact that some give only those claiming the premiums offered by the State Society; others include in their estimate those presented to the county society for premiums; and some embrace all that were shown at the Fair, whether claiming premiums or not. We may here remark too, that the patrons of the Onondaga County Society did not in general come forward as fully and strongly as they might and would have done with their fine animals and agricultural products, had they not relied on the State Society for the principal interest of the two days.

Our host of the Syracuse House, found his powers of providing food for the multitude, pretty well tested, and amply and honorably did they sustain themselves. Not far from twelve hundred partook of his splendid farmers' dinner on the first day. J. B. Nott, Esq., President of the Society, presided, and after the many good things on the table had been liberally proved, in a few well timed remarks he introduced to the company that eminent western agriculturist Solon Robinson, Esq., who was present, and who is so favorably known as the pioneer in that great undertaking, the formation of a National Agricultural Society. Mr. Robinson at once responded to the call, and in a speech of some fifteen minutes fixed the attention of the hearers, by his well timed allusions and happy illustrations. The Hon. Micah Sterling of Jefferson county, long a Senator from that district, and now well known as an agriculturist, being called upon, next addressed the company as follows:—

Mr. President and gentlemen of the Society:

An Agricultural Society has been organized in the county of Jefferson, and its prospect of success and usefulness is very fair. About 300 farmers have already joined it—they have raised between four and five hundred dollars—they have

held their first cattle show, which went off remarkably well—they distributed premiums to the amount of \$341.

When the law was first passed appropriating a sum of money for the encouragement of agriculture, I had great doubts as to its expediency, and feared that evil rather than good would be its result. Indeed I looked upon it as little else than a wanton waste of the public money, and had repeatedly, while a member of the Senate, voted against the passage of such a law, not from any intrinsic defect in the law or its policy, but because I had been convinced from experience, it would do no good to give away the money of the people to help them "who would not help themselves," that the farmers were not awake to its importance, that public opinion was not prepared for it, that the agriculturists would not organize societies under the law, or if societies were established, it would be, as it had been heretofore, by a few theoretical, public spirited men, calling themselves farmers, but really not working men; that such societies would flourish for a while, make a show or two, and then die away for the want of sound practical farmers to support them, whose honor and whose interest it was to keep them alive, but who had heretofore, from one cause or another, shown an unaccountable apathy in contributing time and money to the support of these societies. That his own county of Jefferson had shown a striking example of this fact—a society started there at an early date, and as long as it was supported by the mind and the purse of such excellent and eminent men as the worthy President, James Le Roy de Cantonment, that noble Frenchman who devoted his life to doing good, aided by such men as Gen. Jacob Brown and others, the society flourished; it gave character to the farm and the stock of the county, and did every thing went on admirably. The people and the farmers flocked to the cattle shows and fairs, and were delighted; they were pleasant and delightful holidays for the farmers, their sons and daughters; but when money was called for to pay the expense of the premiums, &c. the practical, hard working farmers, with some noble exceptions, were nowhere to be found—they had gone home and forgot to leave their dollar to help pay the expense. In a few years, God in his inscrutable wisdom, removed some of these men by death—poverty overtook others, and the Society, left to the guidance and support of the farmers alone, soon dwindled and shortly expired.

Having seen the whole operation of this thing, I had little faith that any societies would succeed, established upon similar principles and having similar objects in view.

But from the indications which have been exhibited, since the passage of this law, in the county of Jefferson, and from the numbers, and the zeal, and the intelligence I see collected around me, I have changed my opinion, and think the prospect is now bright and cheering, that the law will prove beneficial, and that the county and state societies will succeed, as the real farmers show new life and vigor, and act as though they were resolved to unite their energies and place their own profession in honor, where it is in fact, among the most useful, happy, healthy and respectable occupations of man.

There are a variety of reasons which make me believe that a great and most beneficial change has spread over the state within the fifteen and twenty years past. The farmers of New York have greatly increased in knowledge within that time; their sons too have come forward with more zeal, more time and more intelligence than their fathers possessed. The circulation of information is much more general, more active, and of a more useful nature than it was. Our agricultural papers scatter much light and knowledge in all parts of the state, and are inculcating the right spirit into the farmers and their sons—they are no longer ashamed to be called farmers, and they begin to see and to feel that they are on the right road to health, to happiness and to fortune.

Our rich men begin to see that they had better make farmers of their sons than lawyers or doctors, if they want them to live long and be blessed with comfort, health, a clear conscience and a competent fortune. It begins to be well understood, that here, as in England, our land owners are destined to be the great men of the nation, its defence, its support, and its honor. Let them be well educated, and they are sure of this; for against them there are no deeply rooted prejudices, but they are now greatly excluded from office,

and have to yield to lawyers and doctors, from the inferiority of their education, not of their moral and mental worth.

It is a truth too, beyond all doubt, and as gratifying as it is true, that the number of wealthy and independent farmers has greatly increased within the last quarter of a century.

I can only speak particularly of my own country, where it is a blessed sight to travel among the farmers and see how in a short time things have changed their appearances for the better—how the log cabin has yielded to the beautiful stone, or brick, or wooden mansion, the barn of poles to the stately edifice of boards and timber, the front yard of dirt and filth to the neat lawn and shrubbery; and how the whole country has assumed or is rapidly assuming that appearance of neatness, beauty, high cultivation, and comfort, which all American farmers, with honesty, industry and economy, can soon attain to. I dare say other parts of the state are equally changed for the better, and equally sustain the great cause of cultivation and improvement. Add to all this, many men of wealth and taste and science, have devoted their time, and a portion of their wealth, within a few years past, to the importation and rearing of the first order of stock, and while it is hoped they are increasing their ample fortunes, they are becoming the true benefactors of the country, and take an active and prominent part in sustaining the cause of home industry and agriculture.

It is needless to mention their names. One such man makes himself sufficiently conspicuous by the good he does and the gratitude and respect he commands.

The result of this increase of wealth and intelligence among the farmers, is, that they become more patriotic, more social and more communicative. They are not like other professions, they have no professional secrets—on the contrary, they take pleasure in communicating whatever will interest, or please, or be useful to their neighbors—if they have a better breed of pigs, cattle or horses, they do not strive to monopolize it, and if they have discovered any thing new in the cultivation of the earth, they disclose it to their neighbors with pleasure and pride. This makes them desire to congregate together, exhibit what they have to show, and communicate what they have to teach and enjoy, at least once a year, the "jubilee" of the farmer. In a country like this, where there are so few holidays of any sort, how reasonable and proper this is, especially since the days of rum drinking are gone by, and they collect and part like temperate and rational men.

Society must arrive at a certain pitch as to knowledge, wealth and comfort, before this can take place. Nor does it detract in the least from the merits of the "pioneers" of the wilderness. Their means were too stinted and their occupations too severe to do any thing but to provide the immediate necessaries for themselves and their families.

It is also a truth not to be lost sight of, that we have now a fund of experience, partly growing out of the existence of the old societies, partly from the natural course of events, to direct us in the management of these societies, which we did not formerly possess. One great evil we met with in those days, was the mode in which premiums were distributed. It seemed on some occasions like a mere scramble for money, instead of reputation; the consequence was that we saw little of that disinterested spirit which should characterize alike the disappointed and the successful candidate; and heart burnings and bitter rivalships frequently grew out of it, which misrepresented and impugned the motives of the judges and operated unfortunately.

More or less of this will perhaps now exist, but if good judgment and great precaution are used, most of it can now be avoided, the more easily from the superior intelligence which now prevails. Another way to avoid it is to gratify as many competitors as possible, and for this reason make the premiums more extensive and general, and give them more weight in character than in money.

With all these advantages arising from this increased wealth and progress in knowledge, if the great body of our hard working farmers will lend their aid in time and money, (and but very little from each is needed), the society is sure to succeed, a noble impulse will be given to the cause of agriculture, and the beneficial operation of the

law be felt in all branches of the community. Wealthy and public spirited citizens will be found among our rich merchants and professional men of age and leisure, who will take pleasure and pride in seconding the efforts of the farmers; and thus an institution will be handsomely sustained, calculated to add greatly to the wealth, power and reputation of the State of New-York.

One great advantage, if no other, will grow out of these annual meetings. It will convene together in one great social body, all the leading and efficient friends of agriculture in the state. These meetings will be composed of a high order of men, of congenial feelings and occupations.

Their views will be similar, their objects will accord, their meetings will be social and friendly, they will meet in good cheer, act in concert, and part with the kindest feelings. Can any thing but unmixed good come out of such an association? Party spirit and sectarianism will be banished, and no interest will claim attention but such as a gentleman and a Christian can conscientiously support. Such meetings will serve to bind together our republic, and would be useful, even did they not give a new impulse and an additional character to the most useful, necessary and healthy of all occupations. The scene before me of hundreds of happy, intelligent, independent farmers, collected from all parts of the state, not to engage in political strife and quarrel about office, but met together for their country's good, consulting how best to promote the farming interest, with no jarring interest, and no heart burnings of any sort, but good will and benevolence smiling in every countenance, is one of unalloyed pleasure and satisfaction.

The county societies will send their delegations, and thus you will have combined in one body, on any anniversary of the society, an immense mass of intelligence, congregated from every section of the state, bringing into social and happy and profitable intercourse, those who would otherwise be strangers; and who by their proceedings will collect and embody an abundance of useful information, not only upon farming but upon other great interests of the state. One subject will pre-eminently claim their attention, for in travelling to this place it will be deeply impressed upon their minds. I mean that of "internal improvement." This should never be lost sight of, and depend upon it, if our legislators do, the people will not, and if you who have already had your rail-roads and canals will not help others, we will knock, at the doors of your legislative halls till you shall hear us,—yes, and aid us too, especially when you are about to have from the public lands \$480,000 a year, and an enormous income from your canals and salt duties. As farmers have no professional secrets, as they delight to communicate all their discoveries and improvements, and exhibit the best specimens of their skill and their flocks, these meetings cannot be otherwise than useful, as well as most interesting and agreeable. As the occupation of the plough is of no party, as the times are those of temperance, as farmers are characterized by the love of order as well as zeal for the public welfare, being identified with the soil, as they justly realize their responsibilities, being the foundation on which rests the happiness and subsistence of all, there is no danger of any sort to be apprehended from these gatherings, but that they will come and pass off as the jubilees of the farmers always do, with the greatest order and decorum.

If husbandry is made respectable, as it ought to be, it will serve to check one of the greatest evils that bears now heavily upon the community—the rush of our young men into the learned professions, which are already filled to the overflowing, especially that of the law, which, under the present wretched course of legislation, of making litigation cheap, is starving this once honourable and most useful profession.

Yet it is thought to be the high road to office and honour, and ambitious fathers and weak mothers are for making their sons great lawyers and eminent judges. Intuituated policy. The greater share of them never rise higher than respectable pettifoggers. Many of them get disheartened, sink into dissipation and idleness, the best—yes, the very best, lead lives of labour and anxiety, drag through a life of dyspepsia and "blue devils," and if they arrive at rank and office, they are made perfect slaves of, with half pay, and get more curses than blessings from their constituents.

The business of the farmer knows no such anxiety, is accompanied with no such risks, it is

quiet and peaceful. Make it intelligent, and you open to it the first and highest honours of your country; there are no prejudices against it as against that of the law; there is no limit to it, it is broad and extensive enough for all, a rich and broad domain, the vast possessions of the government lie open to us—it invites us to cultivation and improvement. If our rich men will plant themselves in the country, and educate their sons to the care and knowledge of the farm, they would see the land smiling around them, their children be honoured in their industry, the occupation of the plough be elevated and respected, their sons prove healthy, robust and strong men, and they and their descendants become, as the landholders are in England, the great men and strong props of the government. Hard and incessant toil is not essential in any farmer, nor any toil equal to the exhausting unhonoured labours of the lawyer and mechanic—a few hours a day devoted to the regulation and superintendence of the farm, affording a most wholesome and agreeable exercise to the body, is all that is requisite in the independent farmer—reading, writing, &c., will pleasantly and profitably occupy the rest of the day.

To my brother lawyers in particular, would I recommend this kind of life as the happiest and the best. They are capable of making good farmers, and when advanced in life they are fit for little else; the strife and rivalry of the law are neither suited to their own temper or taste. They are often, if not generally, first and foremost in every good work. Let them set the example in this. I regret not meeting more of them on this occasion. It is said to be dull times for them—three hundred are said to have cleared out from the city of New-York. I hoped to have met some of them here—the country and the plough will receive them with open arms, and give them plenty of honest business. There is room enough for them all. I offer my own experience as a slight and humble instance of what may be easily effected—I have had the pleasure of superintending a farm—I have succeeded to my entire satisfaction—my farm is growing up under my own eye, yearly developing new beauties and new sources of income and improvement, and if it does not make me a richer, it makes me a healthier, and I trust a better man. In fact dyspepsia and the blue devils immediately left me. I am conscious that the occupation is an honest one. I know it is a healthy and pleasant one; and as it interferes with no man, it is a peaceful one, and all nature tells me it is one that God will bless and prosper.

(From the Examiner.)

DR. ROLPH'S LETTER.

TORONTO, November 27th, 1841.

Sir.—Having remained in this city for the express purpose of attending the meeting of the agriculturists of the Home District, to consider the propriety of petitioning the Imperial Parliament for a remission of the duties now levied on Canadian produce on its introduction into British ports, and heartily concurring with you, in your views, as to the best mode by which this boon may be obtained, I take the liberty of sending my views on the question, being unable to attend the adjourned meeting to be held on this interesting subject. It seems to me exceedingly desirable that the agriculturists of the Province should unite cordially together in obtaining that assistance and encouragement from the mother country which is loudly called for by the relative wants, as well as for the mutual advantages of Canada and Great Britain.

Perhaps there never was a period when any application could be made for the removal of the duty on Canadian produce, with more certainty of success than at the present time. It is now somewhat more than two years since, that the Agricultural Protection Society in England, embracing the feeling which would spring up amongst the labouring classes in Great Britain on the subject of the Corn Laws, and wisely and patriotically resolving to join common interest with the Colonies on this matter, taking advantage of my presence in England at that time, honoured me by consulting me Corresponding Secretary for their institution, on behalf of the British American Colonies. In order to enlist the

affections and secure the regard of so powerful an interest enlisted on behalf of these Provinces, I mingled much with the potential members of that valuable association, and I have no hesitation in expressing my confident conviction that the agricultural body of Canada has not their hostility to dread, but their co-operation to invite. No class feels greater interest in the rising prosperity of this Province than the landed interest of Great Britain. Agriculture can alone secure the lasting foundation of the wealth and prosperity of this country. There never was a country whose farmers were prosperous, where there was not also abundance of prosperous merchants, tradesmen, and mechanics. The farmers of Great Britain, and the Colonies of Great Britain are not only the best, but almost the only customers now left or to be depended upon to the manufacturers of Great Britain; for it is a well ascertained fact that during the last year that Great Britain was compelled to draw the greater portion of her breadstuffs from the continent of Europe, the British manufacturers derived no corresponding benefit by an increased demand for their articles,—the corn of Europe was paid for by the gold of England. It was the opinion of Lord John Russell, "that it was impossible that high wages and a low price for produce could go together either on farms or looms," encouragement, and just and adequate protection to agriculture, was felt to be of primary importance to the stability and advancement of a country, particularly by those who have ever gloried in the motto of "the plough and the soil." Adequate protection to agricultural produce was considered indispensable to agricultural prosperity by the most intelligent statesmen in the Eastern and Western hemispheres. It has been my unceasing desire, as well as my unremitting effort to introduce into this Province, an industrious and healthy population. The late Lord Sydenham was particularly anxious to encourage the rural population of the United Kingdom to settle here; we require our mighty forests to be felled, and the produce of our prolific and virgin soil to be wafted across the Atlantic in British ships. I wish to see not only the manufacturers of barrels but the growers of wheat in a flourishing and prosperous condition. It had been both British capital and British industry that had cleared the wilds of the United States—that had planted on their forests an industrious and enterprising people—built up populous and wealthy towns in their interior recesses and on the margin of their numerous streams; and it was high time that Canada should receive equal if not greater aid at her hands. Filling our boundless forests with hardy and industrious people who would raise countless quantities of grain, and become consumers of immense quantities of British manufactured goods—and also obtaining a just and efficient protection, as well as stimulus to our agriculture, far from injuring our commerce would very greatly extend and promote it, as in addition to the vast augmentation from our own supplies, the noble natural highways through our Province, from the Western States to the Ocean, could never be overlooked by the population inhabiting that territory. It is well known that the Western District has a very sparse population, that its fertile soil and soft climate has not been hitherto as attractive as it should be, but during the present year from the port of Chatham alone, there has been exported 70,000 bushels of wheat, and 1,000 hogsheads of tobacco, grown in that immediate vicinity of as fine quality as that grown in Virginia. There can be no doubt but that we should have, and there is little doubt but that we shall have, a just preference in the British market, if our farmers are but active and united in their efforts to procure a remission of the present duty levied on their produce. Whilst all other property is fleeting and uncertain, land alone is stable and permanent,—a property which can neither be swept away nor destroyed. Its interests are therefore of the highest consequence to the community. It is surely a painful and melancholy consideration that whilst a large portion of our industrious fellow-subjects in the British Isles are in danger of perishing from dear or inadequate provisions—that from the fluctuating character of the climate the whole crop of potatoes in that fertile country, Ireland, is seriously jeopardized—whilst we find that pork is obtaining \$20 per barrel throughout Great Britain, and that other necessaries of life in the same proportion, we have but to go into the well supplied markets of this city, and find pork selling at \$2½ per 100 lbs., three

half pence a pound,—and beef and mutton that would not disgrace Londenhall market, but a trifle dearer. This question therefore was one of vital moment to this country and Great Britain. The commerce of England—the agriculture of Canada—the settlement of the country—the incentives to immigration would all be mightily enhanced by the remission of the duty on Canadian produce levied in British ports, and the clamour existing on the Corn Laws in Great Britain be promptly and effectually appeased. The capability of raising the very finest wheat in this Province is undeniable. Mr. Hawke kindly gave me, last year, a small bag of wheat that had been grown on the new settlement near Owen's bay, on Lake Huron. It was not a picked sample, but taken promiscuously from a quantity that had been raised. It was considered by the farmers of England of so superior a quality that at the market tables in Bedfordshire, it was grasped with avidity to plant for seed. It is therefore highly desirable that this question should be pursued vigorously, and be untrammelled and unencumbered with any other request. It is one on which all parties can unite, and I am so deeply impressed with the conviction that the warmest friends of agricultural protection in Great Britain will entertain the proposition with favour, and promote its adoption with all their power, that I would strongly recommend that the petition to the House of Lords should be entrusted to his Grace the Duke of Buckingham, and that in the House of Commons to Sir Edward Knatchbull, Baronet. That this interesting subject is commanding attention, the following extract from the Montreal Transcript, demonstrates:—

"Our export trade of Wheat and Flour has within the last few years made rapid strides—the improvements which have been brought into operation in the conveyance of freight from the West, have imparted to this city considerable importance, as a market for the sale and export of produce. It becomes, therefore, the duty of those whose interests are embarked in this branch of our commerce, to submit without delay to the Imperial Parliament, evidence of our capacity to remove the most objectionable feature of the existing Corn Laws, and afford at the same time to the manufacturing population of England, an abundant supply of the finest wheat, upon terms which the agriculturists of the United Kingdom would not consider injurious."

With our noble Province, and its numerous highways to the Ocean—with our small and scattered population, compared with our agricultural capabilities—with the redundant and suffering population of Great Britain and their inadequate supply of the staff of life, it should be our pleasure, as it is obviously our duty and our interest, discarding all minor matters, to prosecute sedulously and zealously our undivided efforts to render the relative wants of Great Britain and Canada, of mutual advantage to each other; and if, as it is more than probable, that by a vigorous and united effort, we should succeed in obtaining a remission of duty on Canadian agricultural produce, we shall be abundantly repaid in beholding our farmers enriched by successful industry, our merchants flourishing from lucrative commerce, our tradesmen enjoying the profits of extending trade, and the whole Province participating in the blessings of general prosperity and welfare.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS ROLPH.

FRANCIS HINCKES, ESQ., M. P. P.

Petition to the Queen, adopted BY THE AGRICULTURAL COMMITTEE HOME DISTRICT.

MOST GRACIOUS SOVEREIGN:

We, your Majesty's most faithful Subjects, Inhabitants of Canada, beg leave to approach your Majesty with our earnest and humble Petition; and while making known the difficulties under which we are labouring, we beg to assure your Majesty, the chief object of our solicitude is, the continuance of the happy union which exists between this Colony and the Parent State.

Britons by birth, or the descendants of Britons, we feel that we are an integral part of the Empire, for time cannot efface our early associations; neither can the wide waters which separate us, impair our loyalty nor weaken our attachment to the land of our birth, or of that of our ancestors.

Your Petitioners most gracious Sovereign deeply regret the necessity which compels them to renew their supplications for relief, but notwithstanding the important advantages conceded to encourage their exertions, a variety of causes have combined to prevent their realizing the product of their labour, the great distance from the ocean, and heavy charges for transportation, so enhance the cost of British manufactures necessary for the farmer's use, and so reduce the value of his produce as to limit his means of contributing to the support of the wealth and industry of the British Empire.

Grateful as we must ever be for the kind interest your Majesty has shown for our welfare, in recommending such aid as will not only relieve us of a part of our burthen, but will enable us to complete those extensive improvements, tending to benefit the trade, and develop the resources of the Province; yet, aware of the heavy responsibility it attaches to the landed interests, we cannot but feel alarmed, lest any change in Colonial policy should remove that preference accorded to our staple produce, without which the Province can never prosper, and upon which our trade and industry almost entirely depend.

As nine-tenths of the population of Canada can only be profitably employed in agriculture, the source of their prosperity must be derived from its encouragement and support—as the commerce we possess arises from their industry, and is based on their success. The inhabitants of this Province feel, therefore, a deep interest in the approaching discussion on the Corn Laws in Great Britain, their subsistence being dependent on the maintenance of such protection, as will prevent the present prices from being materially depressed.

The unfair competition which your Petitioners have to sustain with the neighbouring Republic, whose agricultural productions are obtruded upon us free of duty, whilst the duties in those States remain so exorbitant—no attempt being made to procure an abatement on the part of that country, otherwise so gratuitous in this—has from the year 1831, formed the subject of repeated Petitions to the Provincial Legislature; and although each successive Parliament concurred in the necessity of protection, by voting addresses or passing resolutions, imposing a duty on United States produce, sufficient to protect the British and Canadian agriculturists, without depriving the British owners of the carrying trade, which were laid before the Imperial Government, the evil not only continues to exist, but has recently been aggravated by additional impositions. It is not for your Petitioners to discuss the policy of free trade, but even the advocates of that policy must admit, that it is good for any thing, if should be reciprocal. Your Petitioners humbly submit that in a country so situated as Canada, whose agriculture is so burthened, the want of agricultural protection is daily rendered less supportable.

We therefore earnestly pray that your Majesty will take this our humble Petition into your most serious consideration, and that your Majesty will be pleased to recommend to your Imperial Parliament to remit all duties upon grain, flour, oatmeal, beef, pork, butter, pease, and such other of the staple products of this Province, as may to your Majesty seem fit; and further that your Majesty will be graciously pleased to instruct your Representative in this Province to co-operate with the Provincial Parliament in imposing such duties as may be thought advisable, upon the agricultural products of the United States of America, on importation into this Province.

That Providence in its wisdom may grant your Majesty a long, glorious, happy, and prosperous reign, is the prayer of your Majesty's loyal and devoted Canadian subjects.

RURAL ECONOMY.—To make an excellent durable water proof grease for boots, heat a pound of tallow in a two quart iron kettle or skillet, put in six ounces of finely shaved India rubber, and continue the heat until it is thoroughly dissolved. A little beeswax added is an improvement. Old overshoes may be used for the India rubber. Boots thoroughly greased with this composition, will completely protect the feet from moisture though exposed a whole day to melting snow.

From the Albany Cultivator.

"Knowledge is Power."

The characteristic of the present day, is *reformation* and general improvement in the agricultural department—in the sciences and arts—by general diffusion of agricultural and scientific knowledge and by "elevation and refinement in intellect."

Thus it is by a knowledge of the laws which govern material substance, that we are to become acquainted with their nature and composition. Our success in performing experiments, depends on our knowledge of the substances.

We can see a great deficiency among our most practical farmers, in the department of scientific knowledge.

There is a very erroneous idea, which is extensively entertained among all classes of the community and which has too long wound its serpentine coils around us abettors, and has been a mighty barrier to improvement in agriculture, that a farmer "needs no more knowledge than is necessary for him to read and write and keep his accounts," &c. This might, perhaps, stand a better test a century ago, but in these days of intelligence, and in this enlightened age, we are taught different. Our fathers, we know, had but poor facilities for acquiring knowledge of any kind; and they raised greater crops than we do at the present day. There are many of our best farms, for what growing that have been "under the plow," as it is termed, until they have become completely impoverished; and then they are thrown aside as good for nothing. Therefore, under such circumstances, we must conclude a remaining system. But how is this to be accomplished? I answer by artificial aid.

But this cannot be done by us, who consider ourselves good practical farmers, because we have been taught to follow in the footsteps of our predecessors—our fathers, who know nothing of the ingredients of the soil. We have not knowledge to analyze the different soils, nor to learn what plants will thrive most vigorously on a given soil. If we attempt this, we find soon, we are incompetent to the task—and deficient in all the necessary knowledge upon which we may form a correct judgement or arrive at a correct conclusion.

For every reflecting mind must know, that after a farm becomes so impoverished, by a series of exhausting crops, and exhausted of all its nutritious qualities, which artificial aid only will restore, that it requires all the knowledge and skill of the most profound and scientific to restore, in part, the soil to the state which nature gave it; and even then, it requires the most systematic and judicious course of management to accomplish such an undertaking. A farmer should have more knowledge.

But I would not be understood that he should be a college learned man, nor have him pursue a classical course of study. But he should understand the sciences, particularly philosophy, chemistry, botany, geology, &c. By pursuing the sciences, the powers of the mind are unfolded and drawn out into action, and thereby we are rendered close and profound thinkers, critical and scientific investigators, and close and exact reasoners. And furthermore, there is a pleasure in pursuing the sciences which none but those who have experienced it, how highly to appreciate. If a person becomes well versed in the sciences, he enjoys many pleasures, to which he who is contented to remain in ignorance, must ever remain a stranger. It matters not whether an individual designs to occupy some conspicuous station, or to follow

the humble occupation of an agriculturist, he needs a well cultivated mind. He needs that knowledge which will enable him to learn by actual experiment, what soils are better adapted to the growing of wheat, &c.

He should know by what means he can restore a worn out farm to its native fertility, which will be the best expensive. He should know the nature of every plant and in what locations they will grow most healthfully, what is the preponderating influence that composes them.

The sciences unquestionably reflect a vast amount of light on those, which are as yet, hidden laws to the majority of farmers, which would if rightly appreciated, be productive of an infinite amount of good. And besides there always appears to a scientific mind, even in the smallest plants something that is calculated to excite the mind, and which strikes it with awe.

A. E. A. E.

Salt for Stock.

Cattle of all descriptions, away from the sea board, should be furnished liberally at this season with salt. It has a powerful tendency to correct the bad effects of green fodder, and is highly advantageous to the animals health. It is an excellent plan to have boxes constructed to a shed or outbuilding, where it may constantly be kept, and where the cattle can have free access to it at all times. Swine that are kept mostly on fresh food, such as roots, apples, &c., with but little seasoned food, require salt as often, and are as fond of it in its simple state, & as much benefited by it too, as the sheep or cow. We have found, by recent experience, that a store hog, confined to fresh food, will eat an average of one pint of salt per week. Farmers would do well to attend to this propensity in their dependants, as by the free use of salt, any of those fearful diseases, to which hogs are subject during their confinement, would be ameliorated.—*Yankee Farmer.*

From the Genesee Farmer. Wintering Bees.

Mr. Tucker—Agreeable to your request, I called on Mr. Eggleston, and obtained from him the following statement of his method of wintering bees, and the success attending it.

In the fall of 1837, he buried 30 or more hives, and the following spring they were taken out without the loss of any. In 1838 he buried 10 hives, with the same success, but lost 7 or 8 hives of bees that stood in his bee-house through the winter. He says that he finds very few, or no dead bees under his hives that are buried, and that they winter on much less honey than when left in the house; some small swarms have lost but 3 lbs. in weight in wintering, and the largest but 10 lbs. He has buried his bees or some of them, each year, for four years past, and has not lost a swarm that was buried, and shall hereafter bury all that he intends to winter; he has now about 40 swarms. Another fact—those that are buried do much better, and swarm much earlier in the spring.

Mr. Eggleston's method of burying his bees, is to dig a shallow trench in the ground, long enough to set the No. of hives he wishes to bury, with a gentle slope in the trench, to carry off the water, if there should be any collect, and then place the hives in the trench, raised a little from the ground, by a small stone under each corner of each hive, then covers them with straw and lastly with dirt, to use his expression, as you would a pile of potatoes, so deep as not to freeze under the hives.

As to the success of Mr. Eggleston in preserving bees, as described above, there can be no doubt, as it is known to all his neighbors, who (if necessary) will certify to the facts as stated.

Yours respectfully,

ANSON ANDREWS.

Reading, Aug. 20, 1839.

Knowledge.

It is a mistaken notion which is entertained by many, that in order to make any considerable advancement in knowledge, it is necessary that the whole time should be devoted to study—that manual labor should be abandoned, and that the literary aspirant's only hope for success is in gaining admittance to some profession. Reason teaches no such doctrine—experience proves no such doctrine. To practical, hard-working mechanics and farmers is the world indebted for many of the brightest literary gems and most profound and scientific treatises extant. Witness our Buratt—the Blacksmith—of the present day—our Frankon of olden times—Bloomfield, Burns, Aikenside, and a host of others. We trust the day is not far distant when notions so incorrect and mischievous will cease to exist, and when we may point to those who are toiling in the field and the workshop as men distinguished for their literary attainment and efforts.—*N. B. Mechanic & Farmer.*

Care of Farming Tools.

We believe it may safely be asserted, that the farmer in a course of years sustains as much loss, or is put to as much expense in procuring tools, by their decay in consequence of needless exposure, as from their actual wear on the farm. How many are the instances in which the farming implements, the plows, harrows, rollers, &c., instead of being carefully housed when their use for the year is over, are left in the fields, or perched upon drawn up in battle array in front of the house, occupying a goodly portion of the road, and when covered with snow, forming most convenient places for breaking horses legs, tearing of shoes, &c. &c. Perhaps, in addition to these, are sundry wagons, carts, hay racks, and other necessary things, like the former, exposed to the decay which must result from exposure to the rains, the freezings, thaws and snows of winter. Now, one such season of exposure does more to weaken the wood of these implements, promote decay, and render new purchases needful, than their ordinary wear on the farm, with careful usage, and protection from the weather. As a general rule, it may be remarked that no implement, tool or carriage of any kind should be exposed when not in use. Those not wanted in the winter should be secured from the weather during that time; and so with those not required during the summer season, as sleighs, sleds, &c. The skillful, thrifty farmer is known by his attention to the minor points of agriculture, by his care to save, as well as to acquire; and he who neglects the lesser things cannot fail to find the drawback on his profits large and constant.—*Genesee Farmer.*

Experiments.

Forty years passed away after the Spinach was cultivated by a few of the wealthy, before it was offered in the city markets in the United States. Rhubarb or pie plant, was almost as long coming into favor, and the Tomato which is one of the most wholesome and grateful of vegetables, is yet but partially known among farmers. We know a farmer who only a year or two since, destroyed tomato vines for fear the fruit would poison his children and pigs. History tells us, the French physicians condemned potatoes as poisonous, after they had been extensively used a hundred years. Our finest fruits have been produced by experimenting with trees which bore what was unpalatable in a wild state, and even some of our most splendid flowers, when in the native forests, are by no means sightly. The Empress of China ascertained the *modus operandi* of making silk by experimenting with disgusting worms, on the mulberry leaf, and may we not suppose, experiments will yet bring into use many things more universally rejected. Let no one be afraid to experiment, for it has been by experiments, all discoveries in the arts and sciences have been made.—*Ten. Agr.*

Ice on door step, may be easily removed by showing salt upon it, which will cause the ice to crack to pieces.

Communications.

To the Editor of the British American Cultivator.

SIR:—In offering you my congratulations on your establishing in this Province, an Agricultural Periodical, I can assure you I am sincere in the expression of my wishes that your undertaking may not only prove useful to those classes of the community but be profitable to yourselves.

The Agricultural papers appear to be in a very flourishing condition on the other side of the St. Lawrence, and judging from a letter which appears in the Albany Cultivator of the present month, I should say that the breeders of stock in the United States have profited by its influence in a degree that is truly astonishing. The letter to which I refer was written by A. B. Allen, Esq. of Buffalo, one of the best practical farmers and most scientific breeders, and one of the most disinterested and unassuming men in the United States, consequently he may be fully relied upon.

Who amongst us poor benighted natives of Great Britain would have supposed it possible that after all the labour and enormous expense which our countrymen have expended upon the improvement of their Stock of every description that they could have been so very soon outstripped by the breeders of the United States; yet such is certainly the case, for Mr. A. B. Allen stakes his reputation as a breeder and his judgment as a man upon the fact that he has got some of the very best animals in the world!!—He also states that there is only one herd of Short Horns in England that could improve those of the United States, and it gives him pain to see Durham's of ordinary quality imported into their country, for they are already so abundant in America that they can be purchased for half the price that they would cost in England, asserting that New York, Ohio and Kentucky alone might show successfully against all England—and this he says is his deliberate judgment! Mr. A. has made the discovery that it is one of the easiest things imaginable to manufacture the Ayrshire breed of cattle out of materials which they already possess in the United States.

What a great pity it is that some of our Scottish friends should have been in such haste in procuring specimens of that pretty breed of cattle! Had they waited until the return of Mr. Allen from his nearly three months stay in Europe they might have availed themselves of his important discovery, and saved all the expense of importation from Scotland, and nearly the first cost of the animal besides.

The most important part of Mr. A's letter is still behind—he states, "For Horses England ought to come to us—she has nothing that can compare with our famous trotters, and our Pennsylvania Dutch Waggon Horses are far preferable to her boasted great cart horses. Our climate and soil especially in the primitive regions is much superior to that of England. To produce this noble animal in perfection we have only to pay a little more attention to this department of stock to soon become large exporters." I am and I think most of my countrymen ought to be very grateful to Mr. A. for this important information; had I not received it from such an indisputable authority I should in my superlative ignorance have yet believed that no land in the world could be more suitable for feeding horses than the salt marshes of England.

There is not a more firm believer in the advantages that may be derived from an Agricultural Press than myself, and I have been a reader of Agricultural papers from my

youth up to the present time; but I certainly had no conception that it was capable in the short time in which it has been established in the United States of working such wonders as the gentlemen from whom I have quoted has described. Only think, the United States at the present moment possesses the very best animals in the world, and will be in a condition shortly to make a profit by largely exporting horses to Europe!!

The breeders of the United States have been placed in this truly enviable position by the untiring exertions of the conductors of the Agricultural Press. The inhabitants of that country are proverbially sharp fellows, and apt to learn; I fear you will find it very difficult to bring us up to their standard. I pray you not to be discouraged, but write boldly—if you wish to succeed you must go straight ahead, a five barred gate or a stone wall must be nothing to you—these are not the days to stop at trifles or doubt what may at first sight appear to be great obstacles.

By the way of illustrating this matter; I would not have presumed to doubt one single statement (wonderful as some of them appear to me) had it not been for the circumstance of the large pig. The owner of the sire of some of those Mr. Allen purchased told him that it might be made to weigh easily seventeen hundred pounds. Mr. Allen doubted his judgment, and states that he would not weigh more than thirteen hundred pounds. Now judges will differ in opinion; but to vary so much in the weight of a pig is extraordinary. A third person may pass judgement and he may deduct four hundred pounds from Mr. Allen's estimate, and a fourth person may deduct two hundred pounds more; those three deducts amounting to one thousand pounds, which is certainly no trifle to take from the weight of a pig; but as they still allow him to weigh seven hundred pounds I think the owner has no reason to be dissatisfied. In conclusion, I wish you every success with your publication, you may rely upon my steady support, and any influence I may possess to induce others to become subscribers.

Guelph, 20th Nov., 1811.

To the Editor of the British American Cultivator

Guelph, 27th Nov., 1811.

Sir:—As the conductor of an Agricultural Paper you will I presume make a point of attending (either personally or by your agents) the exhibitions of the Agricultural Societies, for the purpose of making your reports thereon, but as it can be scarcely expected that you have been able during your short career to perfect your arrangements for that purpose, you will probably not refuse the following from

Your obedient servant,

JOHN HARLAND,

Secretary W. D. A. S.

For the British American Cultivator.

The Agricultural Society of the newly created district of Wellington held their first public exhibition of stock at Guelph on the 13th October, and as it was anticipated that some animals of rare excellence would be shewn it created great interest. The Society were much indebted to the politeness of the Rev. Mr. Wodstal for allowing them the use of his yard, in which proper arrangements were made for the accommodation of the Stock. Three gentlemen from the neighbouring District of Gore kindly officiated as judges on the occasion, and by the general satisfaction which they gave proved themselves fully adequate to the performance of the arduous duty which were imposed upon them. The stock began to arrive at an early

hour in the morning, but not too early to escape the criticisms of a large concourse of the good people of the town, who had assembled, for the purpose of passing their judgment upon each animal previous to its entering the yard. There were but three Stallion Horses exhibited, but the show of Mares was large and the majority of them were fine animals. The fine herd of short horned cattle brought forward by Mr. Howett was justly admired; the judges particularly eulogized a four years old Heifer and two Bull Calves. A Devonshire Cow the property of Mr. Jackson was a great favorite with the multitude, and she is undoubtedly a fine specimen of her kind. The young cattle (both Bulls and Heifers) fully demonstrated the great benefit which breeders may derive from putting their Canadian Cows to short horned Bulls. The working oxen were highly creditable to their owners both as regarded quality and condition.—A pair of oxen exhibited by Mr. Peters were extraordinary fat. The exhibition of sheep was large. The Lecesters produced by Mr. Jackson were very fine, as also were the South Downs produced by Messrs. Howitt, Hewat and Budd.—The Grade Leicester were beautiful animals, those exhibited by W. Thompson, Esq. were particularly so, in fact there was not a bad sheep on the ground. The pigs consisted principally of the Yorkshire and Berkshire breeds, and were all good ones; but the boar and sow of the Yorkshire breed exhibited by the Messrs. Harland were extraordinary animals and decidedly superior to any of their competitors. A list of the premiums is given below.

For the best Stallion for agricultural purposes, Mr. Parkinson's Young Muzzleppa,	£2 10
For the best Mare for agricultural purposes, Mr. Jackson's Lucy,	2 10
Second best Mare, Mr. W. Quarry's Durling,	1 5
The best Filly Foal, Mr. S. Owen's, by Prince Albert,	1 0
Imported Bull, Mr. Howitt's Comet,	2 10
Imported Cow, Mr. Howitt's Strawberry,	2 10
Bull not being thorough bred, Mr. Armstrong's Brick, by Adonis,	2 0
Cow not being thorough bred, Mr. Parkinson's Fill Paul,	1 10
Two years old Heifer not thorough bred, Mr. Ambrose's Lovely by Adonis,	1 0
One year old Heifer not thorough bred, Mr. Howitt's Miss Dyson,	1 0
Yoke of Oxen, Mr. Hilton's £2 10, Mr. Parkers' £1,	3 10
Leicester Ram, Mr. Broadfoot's (bred by Mr. Jackson),	2 0
Pair of Imported Leicester Ewes, Mr. Jackson's,	1 10
Imported South Down Ram, Mr. Howitt's,	2 0
Pair of Imported South Down Ewes, Mr. Howitt's,	1 10
Three Cows not thorough bred, Mr. Thompson's,	1
Imported Boar, Messrs. J & C. A. Harland's, Yorkshire Boar, Wamba,	2 0
Imported Sow, Messrs. J. & E. A. Harland's, Yorkshire Sow, Purity,	1 10
Sow not thorough bred, Mr. J. Horning's Susan,	0 10

For raising the greatest number of Lambs in proportion to his stock of Ewes, Mr. Wm. Elliott received £ 2 10, he having raised nineteen Lambs from fourteen Ewes.

To the Editor of the British American Cultivator
SIR;

I am a native born Canadian, and feel much interested in the welfare of my country—I settled on the farm where I now reside, about fourteen years ago, when it was in a state of nature, however by persevering industry, and by the blessing of a kind Providence I have succeeded in clearing nearly one hundred acres. As the process of bringing wild land into a state of cultivation, is in all cases nearly the same, the improvements in my mode of farming, was scarcely visible for the first few years. After my ground became nearly clear of stumps, my anxiety increased, to adopt a more improved system of cultivation, I accordingly became a subscriber to the new Genesee Farmer, and have truly tested the advantages to be derived from an agricultural periodical. When I called at the Post Office for my last No. of that paper, the Post Master remarked, that we had an Agricultural paper published in this Province, that it should be supported in preference to a Foreign publication.

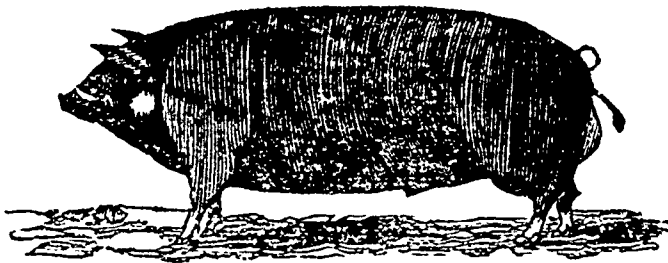
This was the first intimation I had on the

subject—we compared it with the New Genesee Farmer, and found it to be equally as large, and examined its contents, and was much pleased with the matter it contained.

I concluded it was much better to support a publication of our own when it was equally as good and as cheap and much better adapted to our own country than theirs, and by that means keep our cash on this side the Niagara River to support our own Artizans and Mechanics, &c. As I had only an other number of the Genesee Farmer to complete the year, I immediately became a subscriber to your publication, and paid the money in advance, according to your regulations. I sincerely wish you success, in your laudable and praiseworthy undertaking, and I hope every Canadian Farmer, will take an interest in your publication, and those who are in the habit of taking American Agricultural papers, will see the propriety of patronizing one at home—No doubt your publication will shortly become as good as the best of theirs, as soon as your circulation becomes as extensive.

LEVI WILSON.

Trafalgar, Dec. 4th, 1841.



Mr. Severn's Berkshire Hog, York.

MR. EDITOR,

My full bred Berkshire Hog York, is 20 months old the 25th of this month, stands three feet high, and measures five feet eight inches, from the nose to the root of the tail, and weighs 495 lbs. Imported from Rochester when a sucking pig, and am sorry I did not procure his pedigree from the original owner, suffice it to say, that the pair from which he was bred, were imported from England in 1839.

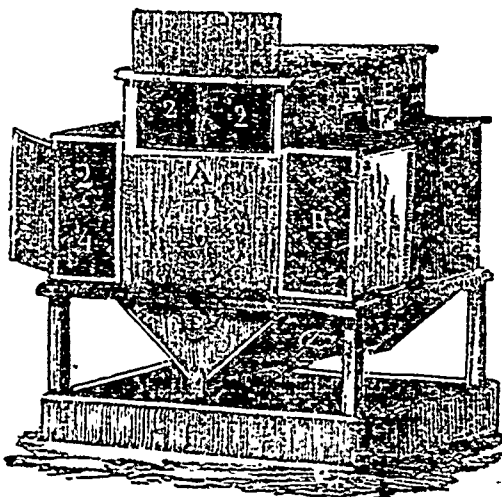
The good qualities of this important breed

of Swine, are so well known that it will almost be superfluous to describe them. They answer well to cross with the common breeds of our country, one of which Mr. Gowland, lately killed, weighed 170 lbs nett, being only 6 months old. I have a young full bred Berkshire Buar, 3 months old, which weighs 177 lbs.

York took the first prize at the last Toronto Cattle Show and Fair.

JOHN SEVERN.

Yonge St. Nov. 29th, 1841.



Perfect Bee Hive and Non Swarmer.

This cut represents the hive placed in the Apiary, when the observer stands in the hall on its back side, where the bee manager performs most of his duties in managing his hives, out of the way of his bees at work. When the collateral B, on the left, and 2, 4, on the right, are both added, the hive is used as a Non Swarmer, when both are off it is

used as a swarmer. The centre box, including both apartments, upper and lower, holds one bushel and a half, not including the space within the angle subtending the square box, or lower apartment. When the collateral's are added, the hive holds about two bushels and three-fourths.—To be continued.

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TORONTO MARKETS:

For the Month ending 27th December, 1841.

Wheat, per bushel.....	5 0	a 5 4
Barley, per do.	2 6	a 3 8
Oats, per do.	1 6	a 1 8
Flour, Farmer's, per barrel.....	25 0	a 27 6
Do. Miller's, warranted per do.	30 0	a 0 0
Do. Superfine, per do.	35 0	a 0 0
Oatmeal, warranted, per do.	0 0	a 25 0
Beef, per cwt.....	15 0	a 17 6
Do. on Foot.....	19 6	a 15 0
Mutton, per lb.....	0 2 1/2	a 0 0
Pork, per 100 lbs.....	12 6	a 16 3
Geese, each.....	2 6	a 3 0
Turkies, do.....	3 4	a 5 3
Fowls, per pair.....	1 3	a 0 0
Ducks, per pair.....	1 4	a 2 0
Eggs, per dozen.....	1 0	a 1 3
Butter, in tubs, per lb.....	0 6	a 0 7
Do. in rolls, per lb.....	0 9	a 0 10
Cheese, per lb.....	0 3	a 0 5
Potatoes, per bushel.....	1 0	a 1 3
Hay, per ton.....	50 0	a 90 0
Salt, per barrel.....	12 6	a 15 0

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All communications to be addressed to the Editor.

Postage.—Our friends will please remember that if we were to pay postage on letters bearing remittances, contributions, &c the sooner we close our publication the better, for a failure would be the inevitable consequence. The plan we will invariably adopt is this—We will pay the postage on our paper to all parts of the Provinces—we expect in return, all letters in connection with our publication will be post paid. Those who fail to remit their subscription money free of postage, the amount paid by us will be deducted from their subscription. On one letter we have paid 9d. another 1s., and on a third 3s. 10d each, containing one dollar—the first in conformity with this arrangement would be entitled to 10 numbers, the second to 9, and the third to 3 numbers.—Editor's Note

Printed at the Star & Transcript Office