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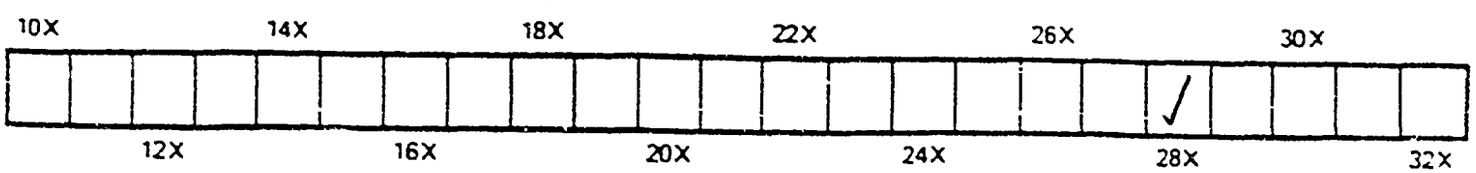

THE BRITISH AMERICAN
CULTIVATOR.

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

Vol. 1. TORONTO, DECEMBER, 1842. **No. 12.**

PROSPECTUS
FOR
SECOND VOLUME
OF
THE BRITISH AMERICAN CULTIVATOR.

WM. EVANS, EDITOR.
W. G. EDMUNDSON,
PUBLISHER AND PROPRIETOR.

THIS is the twelfth monthly number that has been published of this Periodical since its commencement in January last, and it is for the Subscribers to judge how far we have fulfilled our engagements to them. It has been certainly our desire to make THE CULTIVATOR useful and interesting, but it will be for others to show, by their future support and encouragement, if we have been successful in our endeavours. We offer the columns of THE CULTIVATOR to the communications of any who may desire to instruct or enlighten their brother-farmers, on the science or practice of agriculture, or its sister arts, or any subject connected with their improvement or prosperity.

In the future numbers of this work, more attention will be paid to the important subjects of HORTICULTURE and MECHANISM. Each number will contain a GARDENERS and MECHANICS department; and in the spring and summer months a Gardeners' CALENDAR will be prepared monthly, adapted to the Canadian climate, seasons, and productions.

In presenting the SECOND VOLUME of The Cultivator to farmers and other classes to whom it may be useful in British America, we again promise that we shall do all in our power to submit the best information we can collect on the science and practice of husbandry, and advocate in the best manner we are capable, the interests of agriculture. This publication is a proper medium for communicating the wants and wishes of Canadian farmers, and we respectfully solicit for it *their unanimous support.*

From the general testimony in favour of the manner in which this paper has been conducted from the public press, and the most experienced farmers throughout the Province, there is every reason to believe that it will prove universally acceptable, and remunerate its readers tenfold for their subscription.

CONDITIONS.

Each number will contain SIXTEEN PAGES, and the work will be beautifully embellished with CUTS, illustrating the different subjects on which it treats—*making a volume of 192 large pages* yearly, for the low price of One Dollar, *free of* postage, *payable invariably in advance.*

TERMS TO AGENTS.

Six copies will be sent for five dollars, if remitted at one time, free of postage. Thirteen copies for ten dollars if remitted at one time as above. Seventy copies for fifty dollars if sent in remittances of not less than ten dollers at one time as above; and one hundred and fifty copies for one hundred dollars if remitted as above. The extra copies in all cases will be addressed to the Agent ordering the work, and the others to the Subscribers.

N. B. All Orders and Communications to be *addressed to the Publisher* W. G. EDMUNDSON, Toronto, Post Paid.

SUPPORT WHICH SHOULD BE GIVEN TO AGRICULTURAL PAPERS.

THERE are as nearly as may be calculated, not to exceed 80,000 copies of *agricultural papers* circulated in the United States In our population of 17,000,000 we ought to have at least 200,000 of subscribers to some purely agricultural periodical. Let each one of our editorial brethren of other branches of the press, procure for us as many subscribers as possible, from one to twenty, or a hundred will be more satisfactory, deduct the commission allowed, and remit us the money through the post office. By this simple process he will do the state some service, and put money in our purse, both reader's and editor's, but the Lion's share will go the farmer's. So says The American Agriculturist published in New-York.

In Canada a much less number of agricultural papers are taken than in the United States, in proportion to the population and numbers engaged in the business. We take this opportunity of tendering our sincere thanks for the patriotic interest which many of the commercial and political newspapers have evinced *in our success*, and as we have authorized publishers of papers to act as Agents. we trust many subscribers will be *ordered through their agency.* We know of one publisher of a Canadian newspaper, who procured seventy-five subscribers for The Genesee Farmer during the last year, and another fifty, and another thirty; and we flatter ourselves that our work will merit a still greater support. If the same exertion be used for a home production as was for a foreign. (whose business it was to advocate measures which has already produced that which is diametrically opposed to our welfare, we mean *a high American tariff*), that the same success may be anticipated for us, and also crowned with a different result.

At the Witham Agricultural Meeting, England, a gentleman stated he had raised, this year, 37½ tons of carrots on the acre of land. The land had been dug with a spade and well prepared. This produce would be equal to double the weight of turnips for feeding cattle.

PAGES' PORTABLE SAWING MACHINE.

IN our first number we made mention of this ingenious and useful machine, but were not in possession of all the facts we required to make a satisfactory report. We notice in a November number of *The American Farmer*, published at Baltimore, that a committee of four gentlemen were appointed at a fair recently held at Gowanston to superintend its operation, who were to report its trial for the benefit of the Society.

The following is an extract from the report:—"The saw mill was set in motion by a horse power of Mr. Pages' own construction, and with four horses at a moderate walk, sawed 342 feet of plank in 65 minutes. The horses did not appear to labour as much as at an ordinary thrashing machine. The great simplicity and strength of the saw mill are in the estimation of the undersigned, even a greater recommendation than the speed with which it performed its work."

Mr. Page afterwards called the attention of the committee to his *Portable Grist Mill*, moved by the same power, and from the facility with which it performed its work, and the quantity and quality of meal ground, they think it will be a most valuable acquisition to the farmer. We conceive that a portable saw mill would be of the utmost importance to the contractors of plank roads, and in sections of the country where water privilege is scarce, and under that conviction have written to Mr. Page for further information on the subject, and have offered our services as Agent to introduce them in this Province. *As soon as this information comes to* hand we will take pleasure in laying it before our readers.

THE CREDIT SYSTEM.

WE remarked on a *former occasion* that we have deviated in many instances from cash payments being made *in advance*, in order that our journal might be introduced in every section of the Province; there are however difficulties connected with the plan which make the CONDITIONS laid down in our TERMS quite indispensable. We have at this present moment a large list of unpaid subscribers, and hope all such will *lose no* time in making their remittances through our Agents.

TERMS TO AGENTS.

THE change of our Terms to Agents *we trust* will prove satisfactory. We have made the change in order that they may use personal as well as patriotic exertions in extending the circulation of our journal.

THE CULTIVATOR.

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

Toronto, December, 1842.

As we anticipated, the new Tariff of Sir Robert Peel, has already brought much foreign live cattle into the English markets from almost every state in Europe, and caused a fall in the price of cattle in the British Isles of about twenty-five per cent. This fall will have a serious influence on the interests of British agriculture, and it is not impossible but the depreciation in the value of cattle may be greater still, when the nations of Europe find that they have a certain market for cattle, that will give them higher prices than they were able to obtain heretofore. It will encourage them to raise and feed cattle while a remunerating price can be had for them. The new Tariff admits foreign cattle on the payment of a duty, that will not, on an average, amount to much over ten per cent. on their value, and this low duty will not afford sufficient encouragement to British American farmers, to raise beef and pork for the English market. Our climate is more severe than that of most of the countries of Europe, and our situation much more remote from the English markets. The tariff allows us some advantage over foreigners, but not to a sufficient extent. At no distant period England will discover, that to give decided encouragement to her own colonies, will be her wisest policy.—Foreign nations will always be governed in their regulations of trade by self-interest, and as they generally attribute the prosperity and riches of England to her manufacturing industry, they will be anxious to encourage their own manufactures and thus increase the home customers for their raw produce. England possesses capital, machinery, and skill to manufacture for all the world, if she could only induce them to be her customers, but that would be impossible. Jealousy and peculiar circumstances will always prevent this, and therefore, there must of necessity, be a limit to the extent of manufactures in Britain. The colonies of Britain will, if fostered and encouraged judiciously, be her best and surest customers; and as she has colonies in every region of the earth, they can also supply her, in a few years, with all she may require of foreign produce. If a free trade system could be established all over the world between all nations, we should not object to it; but as that probably never will be the case, we object to free trade in agricultural produce, unless it equally applies to all other productions.

The present prospects in Britain, may not hold out so much encouragement to us to raise and feed cattle as we would wish, but matters may turn out better than we anticipate, and it will therefore be prudent, by all means, to augment our stock of cattle, in order that we may avail ourselves of any favourable opportunity that may occur, to sell salted meat in the English market. Cattle are as likely to pay well as any other produce we can raise for sale, and a farm stocked with cattle, does not require so large an expenditure for labour, as one under arable culture.—We should endeavour to improve our breeds of cattle, sheep, and swine judiciously, and have such a stock of each as would be most suitable for our climate and means of feeding. That species, that will yield the farmer the largest returns for the capital employed and the food consumed, will be the best and most profitable to keep. It is profit and not show, that should govern the farmer in selecting breeds of animals, and in improving breeds of animals early maturity is a great perfection—and short-legged animals generally possess this quality, and are easy fattened. Moderate sized cattle, we have always thought the most suitable and profitable in Canada. Whatever may be the size, a good form is, however, actually necessary, to insure a profitable stock. We must also improve our pastures and keep for stock. If we had the very best breeds of cattle that are to be found, they would soon degenerate and become worthless, unless well kept both in summer and winter. With good pastures and winter keep, inferior breeds of cattle may be improved, but without these most essential requisites, it is in vain to introduce improved breeds with any expectation of profit, or of keeping the breeds from rapidly degenerating. Let us improve the cultivation of our farms, and our meadows, and pastures, and the improvement of our cattle and sheep will be certain to follow. It should be the *principal object* with all our Agricultural Societies, to encourage the improvement of the soil first—to introduce the best models of useful agricultural implements—and to circulate practical instruction amongst the agricultural classes. If Agricultural Societies were to do all this, they would effect more profitable improvement in one year, than they can in twenty by only giving premiums upon stock. Large sized improved stock would be starved on nine-tenths of the farms of Canada East, in their present state of cultivation and production. An improved cultivation of the soil—more perfect dramage—and the careful extirpation of hurtful weeds—are the most desirable and necessary improvement for us to introduce. Those who generally obtain premiums on stock, are farmers who require no encouragement to induce them to practice the best system of agriculture. Indeed it is only such farmers who can have any pretensions to be successful competitors for cattle at cattle shows, and all others feel themselves virtually excluded. We beg to submit some of the Rules and General Conditions that were established by the County of Montreal Agricultural Society. They may offer some useful suggestions to other societies. We would strongly recommend premiums for well managed farms, and we would also recommend the appointment of parish committees for superintending the progress of improvement, and as the means of communication between county or district societies, and every parish and section of the Province. If we are to derive any general benefit from Agricultural Societies, and the expenditure by them of public funds, we should adopt the most likely means to produce benefit. It may be said that the plan we suggest would give too much trouble to county societies. We are firmly persuaded however, that the general good that would be produced by our plan (and it was our own originally), would amply compensate for the trouble. We should not take upon us to act in the capacity of managing committees of Agricultural Societies, if not determined to do all in our power to promote the objects for which such societies are instituted, and obtain public money to expend. If such societies are not useful they are not necessary. It is by encouraging improvement, where it is most required, they can produce the greatest amount of benefit to the community. To do this, we humbly conceive, should be the governing principle of all Agricultural Societies, and where it is not so, very little good will be produced. We have the very best precedents for our example, the Royal English Agricultural Society, and the many hundred other societies in the British Isles. All these societies give their principal attention to the improvement of the soil, implements, the destruction of vermin, and the general interests of agriculture.

[The Rules and General Conditions of the County of Montreal Agricultural Society, referred to in the foregoing article, is unavoidably crowded out until our next].

We have arrived at the last month of the year, and it may be profitable for us to reflect upon the various occurrences that have taken place during that period. Doubtless, to many, the year that is now nearly expired, has produced both joys and sorrows in a greater or less degree. For the occurrences of a pleasing nature we should be greatful, and it is equally our duty to submit with patience and resignation to afflictions, which, we may be assured, were brought upon us for our good. If we have proper ideas of the beneficence of our Creator, we must be satisfied that He never inflicts suffering upon His creatures unnecessarily. All the dispensations of His Providence, must be for some wise and good purpose. The thoughts of our Creator are not man's thoughts. The Ruler of the universe is so infinitely superior to any idea that man can form of Him, that we never can rightly comprehend His dispensations towards us, while in this state of existence. It is only when we "shuffeted off this mortal coil," and become pure disembodied spirits, that we shall be able to comprehend the Deity, and His wise and good government of the universe. While we are in the flesh, therefore, we should submit with perfect resignation and full confidence, that all the dispensations of God towards us are wise, just, and good.—We should make a distinction between the afflictions brought upon us by our own direct acts, and those that appear Providential. The first can be traced directly to our own conduct, and are the results of our own acts, and it would be unjust to consider them as the dispensations of Providence. Afflictions that result directly from our own conduct, we fear, are the most numerous and severe that humanity are subject to in this life. Indeed they are the punishments that naturally follow our own transgressions. It is well for us that it is thus, because it may produce our repentance and reformation, before death removes us from this state of probation. The more we reflect upon the laws and government of God, we shall more clearly perceive that all His laws, for the government of man, were calculated to produce his happiness even in this life. It was only with this view that laws were made for us, and that a sense of what was right and wrong was stamped upon our own minds, to be a constant and faithful monitor to us. Any act of ours in this life cannot benefit our Creator, but we owe implicit obedience to His laws, which He has given us for our own happiness and that of the human family; and to reward our obedience, His bounty has promised us eternal happiness in Heaven.

AGRICULTURAL REPORT FOR CANADA EAST.

Since our last Report, the weather has continued open and favourable for agricultural operations. Up to this time we had scarcely any frost, and none to stop ploughing for an hour. Indeed we had some days in the latter end of October and beginning of November, that were unusually fine for the season of the year. Up to the 18 h of this month, the ground was free from snow in the District of Montreal, and generally throughout Canada East. The cattle had abundant pasture in the fields, and in consequence of the fineness of the weather they did not require to be housed. The open season has allowed ploughing to proceed without interruption, though in some sections of the country, where the soil was strong clay, farmers complained that it was difficult to plough from being too dry. From our own observations and from report, ploughing has been retarded in consequence of the depressed state of agriculture, and the low price of produce. Farmers were unable to employ sufficient labour to do the fall work, and hence were prevented from keeping the plough constantly in operation. It might be advantageous that less land should be ploughed than usual, but we fear that if not ploughed now it will be in spring, and the same quantity of land still kept in arable culture.—There cannot exist a doubt that it would be profitable for us to lessen the quantity of our tillage, and cultivate in a better manner what we did keep in tillage. With a judicious system of cultivation, perfect drainage, and careful weeding of crops, a larger produce might be raised from half the quantity of land we have now in tillage, than we obtain at present from the whole, and we might allow the remaining half to repose in pasture, and recover its fertility. It is most extraordinary that farmers will persevere in tilling a large quantity of land, from which they scarcely obtain sufficient returns to pay for the labour In bringing new, and in some instances, inferior land into cultivation, profitless returns are often obtained by good farmers; but this is a necessary consequence until lands are improved, and can be properly cultivated. There is no excuse, however, for raising scanty and weedy crops on land of good quality, that is cleared and long in cultivation. We wish we could persuade farmers who have strong soils to adopt summer-fallowing, and try what improvement may be produced by it. We do not know any means that would be more in the power of every farmer, to effect the certain improvement of his land than by fallowing, and perhaps there is not in Canada East, *one acre* summer-fallowed, of every thousand acres in tillage. This is passing strange; and must be a convincing proof that the science and practice of agriculture, is very imperfectly understood by our farmers. We wish we could name even a few individuals, amongst the hundreds of thousands of our population, who had adopted some means to encourage the introduction of a better and more profitable system of agriculture. Seigniors and Censitaires—Patriots and Conservatives—have alike neglected to introduce any regular and general system for the amelioration of agriculture in Canada East.—Had agriculture been in the most flourishing condition of improvement and prosperity, it could not have been more entirely left to itself. The fact is the more surprising, when we know that the produce of agriculture is the chief resource and dependence both of Seigniors and Censitaires—Patriots and Conservatives. We may be condemned for taking these liberties, but we are indifferent about what may be thought of us for advocating, in the strongest terms, the interests of agriculture. Any individual who thinks he can show cause, why agricultural improvement should not be encouraged or promoted, is at liberty to do so.

We have already reported, as accurately as was in our power, the produce of this year's crops, and the state they were secured in. We have nothing to add on that subject now. Our future anxiety will be—how we can dispose of our produce, whether to advantage or otherwise. We regret to say, we do not at present, anticipate remunerating prices for almost any produce we have to sell. The lowness of the prices, is a convincing proof of the capabilities of the country to yield large returns of beef, pork, mutton, wool, cheese, butter, and other articles, if the industry of the people was properly directed, protected, and encouraged.

Hay would not be selling for 15s. to 20s. the hundred bundles of 1,600 lbs., oats for 1s. the minot, and other grain in proportion, if the country was not capable of producing these articles in abundance: and if it is, butchers' meat, cheese, butter, and wool may be manufactured from hay, grain, and roots. We import what we might produce, and have our own producers to languish in poverty. If this be true patriotism or sound policy, we confess we do not understand either one or the other. It is hardly possible to form an accurate opinion, at present, as to the expediency of stall feeding cattle this winter, with any prospect of profit or even remuneration. Produce is low, and likely to continue so, but it is equally low in the neighbouring States: and in spring, they may send here their stall-fed cattle and sheep, and reduce our market prices extremely low, even lower than in their own country, because if cattle are once brought here they must be sold, and they may be brought here to a much greater extent than would be necessary to meet the demand. Hence it is, that there must always be extreme fluctuation in the rate of prices, in all markets that are open to foreign supply. This we look upon as one of the greatest evils of our present system of free trade. What would our merchants think, when they imported goods from Britain, if they were met in the Montreal market with foreign goods of the same description, and to unlimited extent, imported free of duty? If they would not complain loudly, and have cause to do so, we do not understand their character. It will never pay to fatten cattle in winter, for exporting their beef, in a salted state, to England. Stall-fed cattle must be consumed here as fresh beef. It is only grass-fed cattle that will pay, exported in salted beef. We hope every exertion will be made to establish a trade to England, in salted beef and pork.

Cote St. Paul, 21st *November*, 1842.

Education.—The article on Education, referred to in the Index, page 181, owing to its length, is omitte

An Act to regulate the Inspection of Flour and Meal, has been assented and become the law of the land; the requirements of which are very important to be understood. During the last few days, some of our friends have unknowingly violated this law, and suffered its penalty in the public market, which appeared to us very vexatious. When new Acts of such importance come into operation, some plan should be adopted to apprise the public of their requirements. The following Sections will be sufficient to inform the interested parties on the subject:

Sec. 10. "*And be it enacted*, That the said Inspectors and Assistant Inspectors so to be nominated and appointed, are severally hereby authorized and required to examine and inspect each and every barrel and half barrel of flour and meal, on application being made for that purpose by the proprietor or possessor thereof, and to ascertain the respective qualities and conditions thereof, by boring the head of each barrel or half barrel and probing the contents to the whole depth of the cask, by an instrument not exceeding five-eighths of an inch in diameter within the gauge or bore of such instrument for that purpose, and after inspecting such flour or meal, the said Inspectors or Assistant Inspectors respectively, shall plug or cause to be plugged the hole bored in each barrel or half barrel for inspection: *Provided always*, that such inspection may be made either at the store, shop, or warehouse of such Inspector, which he is hereby required to keep in a convenient situation for that purpose, or at some store within the limits of the place for which the Inspectors shall be appointed respectively, at the option of the proprietor or possessor of such flour or meal.

Sec. 22. "*And be it enacted*, That it shall not hereafter be lawful within this Province to pack flour in barrels for sale of any other than the following weight, namely: half barrels containing ninety-eight pounds net, or barrels containing one hundred and ninety-six pounds net, avoirdupois weight, under the penalty of two shillings for each and every barrel or half barrel offered for sale or inspection or exported, and with regard to which the requirements of this section have not been complied with.

Sec. 23. "*And be it enacted*, That from and after the passing of this Act, each and every manufactuer and packer of flour and meal in this Province, shall provide himself with iron or metal brands or other instruments or materials by which he shall brand, paint or mark, or cause to be branded, painted, or marked the initials of his christian name, and his sirname at full length, and the place of packing, the quality and weight of the flour or meal therein contained, and the tare of the cask on one end of each, and every barrel or half barrel of flour or meal packed for sale in a plain and distinguishable manner, before delivery thereof, under the penalty of two shillings for each and every barrel or half barrel of flour or meal packed in this Province, and so delivered or offered for sale, inspection, or exportation with such brands or marks.

Sec. 24. "*And be it enacted*, That all flour to be hereafter packed in this Province for sale, shall be packed in good and strong barrels or half barrels of seasoned oak or ash timber, and made as nearly straight as may be, and the staves of such barrels shall be of the length of twenty seven inches from croe to croe, and of half barrels of the length of twenty-two inches from croe to croe, with heads of the same; the diameter of the heads of the barrels shall be from sixteen and a half inches to seventeen inches, and of half barrels from thirteen and a half to fourteen inches, and such barrels and half barrels shall be well seasoned and bound with at least ten wooden hoops, of which three shall be at each end, with a lining hoop within the chimes, the whole well secured by nails, under the penalty of two shillings for each and every cask offered for sale, or exported, which shall not be one of the foregoing description of barrels or half barrels."

NORTHALLERTON AGRICULTURAL SOCIETY.

We have made the following selections from the speeches delivered at the dinner of the Northallerton Agricultural Society, England, which took place on the 31st of August last at Northallerton. The chairman W. B. Wrightson, Esqr., M. P., said:—

"The pursuit in which they were engaged was a very ancient one, and it was not only ancient but it was a most pure pursuit—it was a most useful, most responsible, and most important pursuit; it was a pursuit without which all other classes and all other businesses could neither subsist nor be carried on. (*Applause*). And, therefore, in point of fact, it was the grand key-stone of the whole arch of society."

Wm. Torr, Esqr., said:—"He should like to see science brought to bear stronger on agriculture. In many instances he was aware that where science had been produced practice had been given up; but this was no foundation for opposition to the introduction of science, as the result arose from misapplication, science in those cases being founded on practice, instead of practice being founded on science. (*Applause*). Science, at the same time, was too often taken from books, in which authors were found to differ, and as in the case he had just stated, the effect on application of science was often taken without looking at the cause. If, instead of confining themselves to the effect, they would look more to the cause why such and such things were, he felt sure more beneficial results would accrue to all societies like the present."

The Vice-President addressed the meeting at considerable length. The following is a part of his speech:—

"In their hands was deposited a very high, a very serious and sacred duty—they held the responsibility of producing food for the happiness and comfort of their fellow-creatures—they had it in their power to increase or diminish the necessaries of life, and by their carelessness, stupidity, or recklessness, how serious a result might ensue (*Applause*). He said they had serious duties to perform, and he trusted that when any of them took up the science of agriculture, that they would not do it for mere employment—not to satisfy a mere whim or pleasure; but he hoped they would look at it as having the means in their power of doing as he had described; and if the did not pay that attention to it which they ought, he felt that they would be guilty of a great dereliction of duty to their fellow-creatures (*Applause*). Mr. Mauleverer proceeded to dwell upon the expense of getting in the crops, and to show the great advantage to be derived from mowing the crops instead of reaping them by the sickle, in support of which he quoted Lincolnshire, where the harvest is now almost entirely got in with the scythe instead of the sickle. The advantages were there found to be less waste, less expense (the wages being at the rate of from 6s. to 7s. an acre), a great increase of straw, which, of course, produces a great increase of manure; and thus from year to year the land is considerably improved—(*Applause*). Mr. Mauleverer then directed the attention of the meeting to Captain Barclay's tour in America, which, in speaking on the subject of agriculture, presents two extremes—the one being the reckless speculator, the other the childish adventurer.—With the latter how many were there among their agricultural friends who agreed, and who on the qualities of any new invention being expatiated on, are ready to come forward, and do come forward, and oppose them by such arguments as these—'Oh, no, these things will never do, they'll all go out of fashion to-morrow, and there's nothing like the good old way.' (*Laughter*). Yes, the good old way, for the adoption of which in most cases no argument could be adduced, except that the father, and grandfather, and great-grandfather, had used those means—those good old ways, before them. (*Applause*). Look at the manufacturers, had they been checked by such childish ideas as these? No; they were ready to adopt every thing in the way of improvement, and they might now see the perfection to which they had brought the manufacture of their goods.—(*Applause*). Why then should they be actuated by such nervous, such ridiculous ideas—depend upon it if they did suffer themselves to be so guided, no beneficial result ever could ensue. (*Hear, hear*). Again, let them look at Scotland for example in this particular—let them look at the state of the land in that country some few years back, and now from their exertions and from the improvements they had made, let them consider the result, namely, that that land which a few years back was in a most deplorable condition, was now worth triple the money. (*Applause*) In some few instances he was aware that that was the case here, but not to that extent which it should be.—Mr Mauleverer next alluded to a school for the education of the labouring classes in agriculture, which had been proposed about three years ago, but which he regretted had not met with that support to which it was entitled, and proceeded to show the great advantages of education. He had a little fault to find Their own society he thought was too exclusive—they confined their attention too much to the breeding and exhibition of stock. Now there was ploughing—was it not important that that should be attended to? The celerity of ploughing, was not that a matter for consideration? Why not afford premiums to a class of that description? Why only give premiums to sheep, and cattle, and pigs, and so on, which it was well known were got up and crammed and fed by all sorts of manœuvres. (*Loud laughter*). He meant to say that they carried this department to too great an excess, to the exclusion of other things of great importance. He would mention sheep-shearing also. Was not that of any importance? Why the fact was, they thought of nothing but pampering and stuffing a lot of animals with sago and new milk—(*loud laughter*)—and if the judges present would speak out, they would let the company into such secrets as they were little aware of. (*Continued laughter*). He would mention one instance of this which occurred at Bristol, where a cow was nourished by milk from three or four other cows, and when obliged to be milked in the middle of the day, as soon as the operation was over, she turned her head round to the bucket, and commenced drinking the very milk she had just given. (*Loud laughter*). Instead of this, why did not they give their starved land plenty of seed?—They did not starve their cattle, but they starved the land—and why then did they grumble about their shabby crops!"

It will be seen from these selections what are the objects of the respectable English Agricultural Societies.

EGYPTIAN WHEAT.—Last year the Marquess of Bristol gave to Mr. Mitchell, a gardener, of Kemp Town, several ears of corn, found upon opening an Egyptian mummy, supposed to be two thousand years old. At the proper season the grain was sown, and has been cultivated by Mr. Mitchell with great care. It has produced very fine ears of corn, some of them nine inches in length, but the grain is much lighter than common wheat. Mr. Mitchell has saved the crop to make further experiments next year.—*English paper.*

WINTER BUTTER.

Of all the products of the dairy, there is none more extensively used than butter; and there is none the preparation of which requires more care, or better repays a little extra attention. The difference between good and bad butter is as wide as between the zenith and the nadir; and there is nothing more advantageous to the dairywoman, or more to be coveted by her than a high reputation for the quality of this article.—Good butter always indicates good order, great neatness, personal supervision, domestic industry, and skill in housewifery; and when a man carries an inferior article to market, the opinion entertained of his wife is directly the reverse of this.

The first thing to be attended to in making sweet butter, and butter that will keep, is the perfect purity of every thing used in the manufacture. Not only the vessels used, the pails, pans, churns, &c., but the room in which the milk is set, and the air which circulates in it, while the cream is rising, should be clean and free from every offensive odour whatever.

The temperature also of the milk while rising, and of the cream while churning, is of much moment. Cream on the milk will be injured or melted by too high a temperature, as well as while the churning process is going on: and if the temperature is too low, the cream rises so slowly that it becomes bitter and the butter of course is unpalatable. A temperature of from 50 to 60 degrees has been thought best for the milk room, and from 60 to 65 degrees will make good butter. The churning after it commences, should proceed without intermission until the butter is formed, and separated from the milk as far as it can be in this stage of the process.

The salting of the butter is a matter essential to its good quality. Too frequently, salt of a coarse, inferior description is used; and so much is put in that it remains undissolved, gritting like sand in the teeth, and provoking uncomfortable thirst. The salt for butter should be of the purest kind, made as fine as it can be by grinding, and if a little powdered saltpetre is mixed with it, it will be none the worse. Some have recommended five pounds of good salt, eight ounces of saltpetre, and one pound of first rate loaf sugar, thoroughly incorporated and used for salting, at the rate of one ounce and a half to the pound of butter. If the salt is of the right kind, and the butter is correct in other respects, it may be questioned whether the addition of any foreign ingredient is not to be deprecated.

The great point in making good butter, and that which will keep, is the freeing of it from all buttermilk; and if every thing else is well done, if this point is overlooked, good butter is impossible for any length of time. The mixture of milk in any degree with the butter is sure to produce frowiness or an unpleasant taste to the butter; and the entire freedom from this, constitutes the grand secret of making good butter. There are many who think washing butter with water incompatible with retaining the rich flavour, but if the water is cold and pure, it is scarcely possible anything should be

washed away, the buttermilk which destroys the flavour of all butter excepted. Besides, the best butter in the world and that which in all markets commands the best price, viz.; Dutch butter, is invariably made in this way; and where the example has been followed by others, it has rarely failed of success. If any, however, doubt the propriety of washing butter, they may use any method they choose, provided the milk is separated perfectly. Perfectly freed from the substance that causes it to assume that putrid frowy taste of bad butter, it may be kept with almost as much ease as tallow; and solidity in packing, clean, sweet vessels, and a low temperature, will ensure its keeping for any reasonable time. Let no one expect good butter, however, so long as coarse impure salt is used, or a particle of the buttermilk is allowed to remain in it.—*Albany Cultivator.*

KNOWLEDGE IS POWER.

In a late admirable report by Horace Mann, Esqr., Secretary of the Board of Education of Massachusetts, the following striking exemplification is introduced of the maxim that "knowledge is power":—

"M. Redelet, in his work, '*Sur l'Art de Bâtir*,' gives the following account of an experiment made to test the different amounts of force which, under different circumstances, were necessary to move a block of squared granite, weighing 1,080 lbs.

In order to move this block along the floor of a roughly chisselled quarry, it required a force equal to 758 lbs.

To draw the same stone over a floor of planks, it required a force equal to 652 lbs.

Placed on a platform of wood, and drawn over the same floor, it required 606 lbs.

By soaping the two surfaces of wood, the requisite force was reduced to 182 lbs.

Placed on rollers of three inches diameter, and a force equal to 34 lbs. was sufficient.

Substituting a wooden for a stone floor, and the requisite force was 28 lbs.

With the same rollers on a wooden platform, it required a force equal to 22 lbs. only."

"At this point," says Mr. Mann, "the experiments of M. Redelet stopped. But, by improvements since effected, in the invention and use of locomotives on railroads, a traction or draught of eight pounds is sufficient to move a ton of 2,240 lbs.; so that a force of less than four pounds would now be sufficient to move the granite block of 1,080 lbs.; that is, one hundred and eight times less than was required in the first instance. When, therefore, mere animal or muscular force was used to move the body, it required about two-thirds of its own weight to accomplish the object; but by adding the contrivances of *mind* to the strength of *muscle*, the force necessary to move it is reduced more than one hundred and eighty-eight time. Here, then, is a partnership, in which *mind* contributes one hundred and eighty-eight shares to the stock to one share contributed by *muscle;* or, while *brute strength* represents one man, *ingenuity* or *intelligence* represents one hundred and eighty-eight men!"

From observations kept for the last half century, it appears that 1793 is the only year which can be brought into comparison with the present as to long continuance of heat and drought. For some days, however, in 1802 and 1811, the thermometer rose to a higher degree, and in 1802 it was above any former instance known in Paris (being once up to 39 5-10ths of the centigrade scale, 105 Farenheit). Those who pretend to be weatherwise predict that the ensuing winter, or at all events, the winter of 1843-1844, will be extremely rigorous.—*Selected.*

(*From an English Paper*).

HORNCASTLE FAIR—ON BREEDING HORSES.

Mr. Editor,—The great horse fair at Horncastle has just terminated, and, as a neighbouring gentleman of that town, I rejoice to say its character for receiving some of the finest horses in the world has not diminished. We have been visited by London, foreign, and other dealers from various parts of the United Kingdom, in great numbers, and notwithstanding the unsettled state of the manufacturing districts, much business has been transacted. First rate hunters and carriage horses fetched high prices, and were difficult to procure. Good cart horses were sold readily at remunerating prices, but the "machiner" half-bred and inferior class of horses more difficult of sale, and at low prices. The great coach and posting establishments having been so generally reduced since railroads were established, there is no demand for the half-bred or inferior class of horses.

It may therefore be worth while to make a few remarks on the breeding of horses, for there is no part of England where there are more spirited, and at the same time more careless, breeders of horses than in the limits of the circulation of your paper. The first axiom I would lay down is, that "like will produce like"; that the progeny will inherit the qualities or the mixed qualities of the parents. It is also certain that the foal will inherit the diseases of the parents, or at least the predisposition to them. There are proofs upon proofs that blindness, roaring, broken wind, spavins, curbs, &c., &c., have been bequeathed both by the sire and the dam to the immediate or more distant offspring. Peculiarity of form and constitution will also be inherited. The unskilful or careless breeder will often so badly pair the animals, that the good points of each will be in a manner lost, the defects of both will be increased, and the produce will be far inferior to both sire and dam.—Of late years these principles have been much lost sight of in the breeding of horses, and the following is the explanation. There are nearly as good stallions as there used to be: poverty or indifference has induced many of the farmers to use that mare on his farm which has cost him little money, but still he determines to have a foal from her, and she is put to the horse; but by what rule does he select the horse? Why, a horse is selected because "they say" he is a good one, or because they only charge so and so for his covering, and a foal is *still* a foal; or neighbour So-and-So has a horse, and you know we must not go by him, for it would not be neighbourly. Under these considerations, not having the least reference to the points of the horse or the mare, a foal is produced, in all probability a worthless animal. I wish to impress upon the minds of all farmers that the excellence of the mare is a point of quite as much importance as that of the horse, and that out of a bad mare, let the horse be as perfect as he may, a good foal will rarely be produced.—Farmers should also bear in mind that a foal which, when arrived at maturity will sell for 15*l.*, requires as much more food as one that will sell for 100*l.*, and that the latter (if worked) will perform as much work for the breeder as the one that sells only for 15*l.*, but should the 100*l.* horse happen to receive a blemish during his work, he will at any rate bring as much as the unblemished 15*l.* horse. I have been induced to make these remarks in the hope they may catch the eye of those farmers, who breed horses, and are careless about the stamp of mare they put to the horse, and who by being thus indifferent, are the cause of producing the inferior class of horses we have recently witnessed at Horncastle fair, and which I trust we shall see by degrees diminish in number.

Your obedient servant,
D.

August 20th, 1842.

ON GREEN MANURING.

The following trial of manuring with green crops was made by Herr Zahlbruckner in the year 1839-40, and was communicated to the Agricultural Society of Vienna at the meeting in April last year. Three pieces of ground were selected for trial:—No. 1 was treated as a clean fallow, and afterwards thickly manured.; No. 2 was sown twice with Vetch seed, and when the plants had grown were ploughed in; No. 3 was sown with Lupine seed, and treated in the same manner. The first piece of ground contained about 800 square yards, the two latter about 400 square yards each. The vetches and lupines were both strong in their vegetation, and the first crop of the former was ploughed in at the end of June, and the second crop with the lupines in the middle of August. In the middle of Sept'r. all three portions were sown with winter rye, in the proportion of three pecks sowed to the acre; in all three pieces the plants appeared about the same time, the green-manured a day or two sooner. No difference was observable in the character of the young plants, and each crop passed through the winter of 1839-40 without any injury; and in March, 1840, when the snow and ice had melted away, little or no difference was perceivable in the crops. At the time of flowering, the fallow and lupine plots were more vigorous than that of the vetch; and at the time of the ripening of the new seed, the lupine plot had attained the highest and strongest growth. In thrashing the corn the following was the result of these experiments: No. 1 delivered 32½ pecks to the Austrian acre; No. 2, the vetch-manured, yielded 26¼ pecks per acre; No. 3, the lupine-manured, yielded 34½ pecks per acre. In some previous experiments made in the year 1833, the green-manuring with the lupine yielded a larger produce than the thickly-manured fallow. That the vetch-manured did not produce so large a quantity of seed as the lupine, may be ascribed to the heat to which it was exposed during the latter part of the season; but still, the result proves the value of this kind of manuring. This mode of providing manure for corn crops may be of great importance in these cases which sometimes occur, in which the farmer cannot obtain the requisite quantity of animal manure. Although these experiments in some measure contradict the recent doctrine, that all manures are derived from the inorganic kingdom, yet the *practical* farmer will not fail to avail himself of this ready way of obtaining manure. This mode of manuring may be conducted with other plants, especially those with large or abundant leaves. The families of Cruciferæ and Chenopodiaceæ offer an abundance of species fit for this process; and there are numerous common weeds which might also be employed for the same purpose, without any expense. The *Madia sativa*, would also be a good plant for green-manuring.—Abstracted from *Verhandlungen der K. Landwirthschafts-Gesellschaft in Wien.*

POETRY.

THE FARMER'S HARVEST SONG.

Ho! rouse ye lads—the morning breeze
Has swept the mist from the stream,
And afar on the hills the towering trees
Are tipt with the day's first beam;
The stars are gone—the night has sped,
And the lark has hailed the day;
Arouse ye, then, while the morn is red—
Away to the field, away!

To us no music sounds more sweet
Than the sharpening clank of the scythe;
And echoing hills with gladness greet
The song of the reaper blythe.
How pleasant to follow, with rake in hand,
The mower's devious way,
And scatter abroad with lightsome wand,
The green and perfumed hay.

Let the soldier exult in the pomp of war,
The king in his serf-thronged hall;
The free-born farmer is happier far
Than kings, and lords, and all.
His are no fields with carnage red,
And drenched with the blood of the slain;
But hills and vales o'er which is spread
A harvest of waving grain.

The summer sun, o'er valley and plain,
Has shed his genial ray,
Till smiling acres of golden grain
Await the harvest day;
And into their borders we will not fail
To carry the war to the knife,
And eager, too, are the cradle and flail
To be wielded in bloodless strife.

Then up and away, while the diamond dew
Bespangles the bending corn;
And gaily we labour, the while we woo
The bracing breath of morn,
And under the shade of the beeches green
We'll rest at noon of day.
Hurrah! for the sickle and scythe so keen!
Away to the field—away!

From The Montreal Herald.

REMARKS ON THE PREPARATION OF PROVISIONS.

BY THE MONTREAL BOARD OF TRADE.

The Board of Trade of Montreal, under the impression that the superior order in which flour was delivered in this port the last season, has in part resulted from their remarks respecting its preparation, have, owing to the great alterations in the mother country on various other articles of food, again to address the public on the proper method of putting up such articles, for which there will probably be a demand in Great Britain, but which, to realize the views of intending shippers must be so prepared as to be suitable to the tastes of the proposed consumers. It is desirable to show not only what should be done, but what should be avoided, in order to secure a trade, which, with care and economy, promises to be of very considerable advantage.

The articles which claim attention, are:

Prime Mess Beef in Tierces and half Tierces,
Ditto ditto in Barrels and half Barrels.
Prime Pork in ditto ditto.
Hams and Pigs' Cheeks.
Sausages.
Mutton Hams.
Butter, and
Cheese.

Mess Beef is so very difficult to be procured, that, as an article of general export, it is not worth attention. It requires cattle of so very good a quality, and so much of the animal has to be rejected, that it will hardly pay to put up. If cattle good enough for Mess could be procured, it would be better to put up the rounds and briskets separately, and to salt and dry the remainder. The Inspection Law provides that Mess beef shall consist of the choicest pieces only, which are briskets, the thick of the flank, ribs, rumps, and sirloins. It is generally considered that cattle to be fit for Mess beef must be five years old. On the other hand, Prime Beef is not sufficiently good, so that it is to Prime Mess the Board would particularly direct the attention of packers, which is the Mess Beef of the Irish market.

By the Inspection Law, Prime Mess Beef shall consist of pieces of meat of the second class, from good fat cattle, without shanks or necks. This is sufficiently fat for the English market, and may be made from the meat of cattle of four years old, or even from those of three, if of good breeds; there is but little rejected, and that little only fit for use while fresh.

As the Law above referred to is precise as to the construction of the tierces, barrels, &c., in which provisions are to be packed, the Board think it advisable to insert the clause regulating that matter. It should be remembered that beef is preferable in tierces and half tierces, pork in barrels and half barrels.

Clause 10, of the Act 4, and 5 Vic., cap. 28, to regulate the Inspection of Beef and Pork, "And be it enacted, That from and after the passing of this Act, each and every barrel and half barrel, tierce and half tierce, containing Beef and Pork, inspected in this Province, shall be made of good seasonable white oak staves, and the heads not less than three quarters of an inch thick, and each stave on each edge at the bilge shall not be less than half an inch thick when finished for barrels, nor less than three quarters of an inch thick when finished for tierces, and the wood of half barrels, or half tierces shall be in the same proportion to their size, and shall, in both cases, be free from every defect; each barrel and half barrel, tierce or half tierce, shall be hooped and covered two-thirds of the length with good oak, ash, or hickory hoops, leaving one-third in the centre uncovered; and each barrel or half barrel, tierce or half tierce, shall be bored in the centre of the bilge with a bit of not less in diameter than one inch, for the reception of pickle; each barrel shall be not less than twenty-seven inches, nor more than twenty-eight inches and a half long, and the contents of each barrel in which beef shall be packed or re-packed, shall not be less than twenty-eight gallons, nor more than twenty-nine gallons, wine measure, and the contents of each barrel in which Pork shall be packed or re-packed, shall not be less than thirty gallons, nor exceed thirty-one gallons, wine measure; each tierce shall not be less than thirty inches, nor more than thirty-one inches long; and the contents of each tierce in which Beef shall be packed or re-packed, shall not be less than forty-four gallons, nor exceed forty-five gallons, wine measure; and the contents of each tierce in which Pork shall be packed or re-packed, shall not be less than forty-five gallons, nor exceed forty-six gallons, wine measure; and half barrels or half tierces in which pork and beef shall be packed and re-packed, shall severally contain half the number of gallons above mentioned, and no more, and it shall be the duty of the Inspector or Inspectors appointed under this Act, to examine carefully and ascertain the sufficiency of each barrel and half barrel, tierce and half tierce, before branding the same, and to brand none with regard to which the requirements of this Act have not been complied with."*

As to packing, of course the rounds and briskets can be put in kits; the prime mess beef, as before observed, in tierces and half tierces, and cut up in precisely eight pound pieces, thirty-eight pieces making a tierce of three hundred and four pounds; nineteen a half tierce. If any error be made, it must be in excess of the proper weight. The meat as soon as put up, should be packed in vats with dry salt, and strong pickle made with one ounce of saltpetre to six pounds of salt, poured on it. The salt should be free from sulphate of soda, muriate of magnesia, or other impurities too common in the salt of the United States. By the Inspection Bill it is imperative to use St. Ubes, Isle of May, Lisbon, or Turk's Island salt, or other coarse-grained salt of equal quality. After being thus prepared, it is left for twenty-four hours, when it is put up in new pickle for at least seven days, such having no saltpetre in it: or it may be left in the pickle until prepared for exportation, when it is packed with a layer between each tier of meat, and between the top and bottom of the barrel, of a mixture of six pounds of salt and one pint of molasses. In this way, instead of eighteen and a half pounds of salt to each fifty pounds of meat, ordinarily used, six pounds will be enough. When headed up, the packages should be filled with the strongest, and perfectly clear pickle. Great care should be taken to cut out all bloody pieces or bruised meat, and to avoid dirt and sand on all occasions. The scales and blocks should be particularly attended to, and should be well scoured prior and subsequent to being used. In slaughtering, it is highly requisite that all the blood be removed, and the meat allowed to cool thoroughly before it be cut up,

Dried Beef, consisting of the ribs and legs, with the bones out of the latter, is very saleable in Britain, if of good quality; this is merely well cured, and then dried, but not smoked, and should be of the very finest meat only. Venison, also Mutton, Hams, and Shoulders, would if similarly prepared, meet the wants of the British consumer.

Tongues salted in the same manner as Beef, are in request; not only those of Cattle, but of Pigs and Sheep.

They should be prepared with great cleanliness, and any thing offensive about the root pared away. Kegs of from fifty to one hundred are the most suitable.

In Pork, the article most wanted is Prime, such being the Mess of the Irish packers; Mess and Prime Mess being too fat, and Cargo too inferior. It should, however, be small, owing to its being young, and from no other cause, say made from pigs from nine to twelve months old, weighing about one hundred and fifty pounds each, the coarse pieces of one hog and a half only being packed. It should be fairly hog and a half pork, not the fat pieces of heavy pork made up with the coarse pieces of the same, but made from pigs not heavier than the weight noted. Neither the head nor the feet should be packed, the cheek should be cut off, and may either be packed or left out. It must invariably be cut into four pound pieces, and any bloody part about the neck taken away; indeed it would be better if, in the first cut of the neck, not only the bloody parts were removed, but the bone cut out also. The shank of the shoulder cut close to the body of the pig should also be left out.

* The Irish provision packages have the second chime hoop at each end of iron; it would be well if that construction were adopted in Canada, as it greatly tends to keep the cask tight.

Cargo Pork, from young pigs of one hundred pounds and upwards, and leaving out the heads, would answer if it should be marked "Pig Pork." The best way of putting this up would be to take young pigs of one hundred and twenty-five pounds, and leaving out the hams and heads which could be dried, to pack the remainder, which, having less coarse pieces than allowed by law, might be safely marked "Prime." The Board considered this a most eligible mode of putting up, and one which would meet with favour in the mother country. The mode of curing and packing pork is the same as that described for beef, except that the molasses are left out, and it is cut into four pound instead of eight pound pieces.—It is preferred in barrels and half barrels.

The reason why tierces and half tierces are preferable for beef, and barrels and half barrels for pork, is, that beef, from the size of the animal, is cut into larger pieces.—The Irish practice is to put thirty-eight pieces of eight pound each in a tierce of beef of three hundred and four pounds, and fifty pieces of four pounds each in a barrel of pork of two hundred pounds. None but very superior meat should be put up in half packages Pork, to suit the English market, must be of a firm texture, young, as before remarked, and well fed, with a due mixture of fat and lean throughout. Pigs fed in the woods, may, by being kept poor a time, and then fatted on peas, corn, or other grain, become very superior meat, but it is to be remarked that pigs fed at distilleries require very long feeding on grain to make good pork. The only use to which distillery fed pork can be put, is to render it into lard.

Bacon is an article of great consumption in Britain, and consists of entire sides of pigs (singed, not scalded), excepting the hams, and having the back bone taken out as far as the middle of the side, as little of the meat being removed with it as possible, the knuckle cut off from the shoulder, close to the body of the animal, and the lower part from whence the ham is taken is trimmed square; or, of sides having both shoulder and ham removed, and the neck cut off square; the latter mode is preferable, as "short middles," as they are termed, are very saleable in Great Britain. The mode of curing is to rub it well, daily, for at least thirteen days, with saltpetre and salt, in proportion of one ounce of the former to ten pounds of the latter; it is then either packed in that state, or rubbed in every part with bran to absorb the moisture, and dried thoroughly. It is preferred however, in the damp state in the English market. Four sides may be packed in a cotton bag, which would be whitewashed. The most desirable pigs for bacon and hams, are from one hundred and twenty-five pounds to one hundred and seventy-five pounds weight, though pigs under two hundred and fifty pounds may do. The pigs must however, be well fed, and small from being young, and not because they are of a bad breed, or badly fed. The necks and rumps can be cut free from bone, and either put up in barrels or prepared as bacon.

Hams, pigs' cheeks, and shoulders should be dry salted as bacon, excepting that one pint of molasses should be added to the same proportions of salt and saltpetre. If the hams be very large, it perhaps, may be necessary to rub them daily for twenty-nine days, instead of thirteen They should be cut in the Westphalia fashion, so as to be compact, not taking away all the fat from the pork or bacon, and not cut over, but straight up and down. A cut must be made at the knuckle, to introduce the salt there; and the hip joint, which, in cutting the ham should be divided, (the bone not being cut through), should also be well rubbed with salt. When well dried, and if smoked for not more than six hours, they should each be covered with cotton and whitewashed with lime. The cheeks should be cut clear from the bones of the head, and may be packed in a dry cask or flour barrel. Neither of these articles answer to ship in the damp state. Ribs of very fat beef, and the leg with the bone out, both of beef and venison, may be cured the same as hams, but do not require covering; they also may be put up in dry barrels.

As before remarked, any distillery fed pork must be avoided; even cattle, fed to too great an extent at a distillery, will prove inferior.

Sausages are imported into Great Britain in considerable quantities, and are generally made from beef, sometimes from pork, and often are a mixture of both. They are put into the large gut of the ox generally, but sometimes in pigs' guts, and are salted and dried. The Dutch and Germans make pork sausages, and merely salt them, they form part of the domestic stores of every family, and are much used at sea. The neck and rump pieces, and some of the inside fat, may thus be very advantageously worked up, especially into the large dried sausages, for which there is a great demand in the mother country. They must be prepared with cleanliness, and be well seasoned with pepper.

The inside fat, of course, is rendered into lard, great care being taken to have it very clean, and not to burn it. The Board particularly urge attention to cleanliness, as for want of this, the article may be unsaleable. The hams and shoulders of pigs, not too soft, may be salted and dried, and the lean parts made into sausages; they should not be packed with those made from hard pork, but sold separately.

The shoulders and hams of sheep, salted and dried, (not smoked), packed in flour barrels would be well worth trial in the English market.

As connected with the present subject, the Board of Trade desire to give publicity to an invention recently brought into use in England, for curing provisions. It is a machine consisting of a cylinder of cast-iron, connected with air pump, and communicating by a tube with a tub containing strong pickle. The cylinder has an air tight cover. The mode of curing it is to introduce the meat into the cylinder, placing on it the air tight cover, withdrawing the air by means of the suction pump, then letting in the pickle, and afterwards forcing in air on the surface. On taking the meat from the cylinder which may be done in a few minutes, it is perfectly cured, and may be packed in the usual way. Such machines would be highly useful in this Colony, enabling meat to be preserved at any season, and any sudden demand to be speedily supplied.

Butter and cheese will, under the new Tariff, be articles of very great importance, and well worthy the attention of agriculturists. The duty on foreign butter being 20s. per cwt., on cheese 10s. per cwt., whilst on Canadian, it is but 5s. on the former, and 2s. 6d. on the latter. The Dutch export of these articles to England, to the value of nearly one million pounds sterling per annum, the whole of which trade may easily be secured to Canada; and if the export of cured provision be only another million, the importance of the trade now opening to Canada may be easily conceived. But this is a small amount compared with what it might eventually be extended to, for in exchange for manufactured goods, the people of Britain will take any amount of bread stuffs and of animal food.

Butter, to be suitable to the English market, must be clean, and free from whey, which should be pressed out with spatulas, not with the hand; unless all the whey be extracted it will not keep. It should be moderately salted with a mixture of 10 lbs. of salt, one ounce of saltpetre, and four ounces of sugar, well worked in, and put up, not in layers as made, but well mixed in the cask; no two qualities in the same cask, and each cask resembling the rest as much as possible. The butter should be but lightly salted. The common error in Canada is to salt too heavily. A large quantity no doubt is necessary, when the whey is *not* well pressed out, but when that is done, a very moderate quantity will suffice.

There is no necessity for using colouring with summer and fall-made butter, the only kind suitable for export. The winter butter should be kept apart and used in the Colony.

As to cheese, the consumption in Great Britain is very great and very constant; but Canada hitherto has been an importing instead of an exporting country. It is unnecessary to describe its manufacture, further than to state, it should be made from new milk, and in such parts of the Colony as, being hilly, possess short pasture with plenty of sweet grasses; and indeed are the reverse of a good butter producing country. Inferior cheese may be made with the morning's milk skimmed, added to the afternoon's milk, new and fresh—and this on lands most suited for butter: but it is to the hilly parts of the Province, where, excepting sheep and cattle, little can be produced, the Board particularly point, as likely to derive important advantages from the manufacture of this article. The best form for cheese is that of truckles, say eight or ten inches across, and four and a half to six inches thick, round or square; these are best suited to small farms. In larger farms, cheeses of greater size can be made, say twelve to fifteen inches, by six deep. The large cheeses like the Cheshire, are difficult to keep; they should be well salted, but not too much so; and coloured with Annatto, but not too deeply; such in England being considered the sign of an inferior article.

DIFFERENTIAL STATEMENT OF THE DUTIES IN GREAT BRITAIN ON THE ARTICLES REFERRED TO IN THE FOREGOING REMARKS.

	FROM FOREIGN COUNTRIES		FROM COLONIAL		DIFFERENCE IN FAVOUR OF COLONIAL.	
	per cwt.	per bbl.	per cwt.	per bbl.	per cwt.	per bbl.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Beef, salted, per cwt	8 0	14 33	2 0	3 6	6 0	10 6
Pork, do. do.	8 0	14 33	2 0	3 6	6 0	10 6
Bacon, do. do.	14 0	20 0	3 6	5 0	10 6	15 0
Hams, do. do.	14 0	20 0	3 6	5 0	10 6	15 0
Tongues, do. do.	10 0	20 0	2 6	5 0	7 6	15 0
Lard, do. do.	2 0	3 6	0 6	1 0	1 6	2 6
Butter, do. do.	20 0	36 0	5 0	9 0	15 0	27 0
Cheese, do. do.	10 6	19 0	2 6	4 6	7 6	14 6

The Act 3 Victoria, chap. 17, levies an additional charge of 5 per cent. on the above rates

EXPERIMENTS IN THE GUANO.

The substance called Guano having attracted much attention in England as a manure, as well as excited a considerable degree of interest amongst many intelligent cultivators of this island, I instituted a series of experiments at the Kirk Onchan nursery on its fertilizing properties.

Guano, it may be as well to premise, occurs as a deposit, of very considerable thickness, on various small rocky islets on the coast of Peru, ranging from the 13th to the 21st degree of south latitude. Its origin has been a subject of fanciful speculation, but it is now certainly known to be the excrement of peculiar kinds of sea-fowl; which, feeding on fish, and visiting these islands in flocks dense enough to obscure the light of the sun, have accumulated their droppings to an extent that seems almost incredible—the accumulations attaining, it is said, the thickness, in some places, of 300 yards.—Vast quantities of this manure are used by the Peruvians for all kinds of crops.

It will not be necessary for me to detain you with a particular account of the constituents of Guano as ascertained by chemical analysis. According to the views of Liebig, and others almost equally celebrated in the agricultural department of chemistry, its fertilizing effect is to be attributed to the nitrogen it contains, in the form of ammoniac and uric acid, (the latter giving use by its slow decomposition to the former), and also, but secondarily, to the phosphate of lime, which furnishes many plants with matters essential to their healthy growth. After this short preliminary detail, which it was thought might possibly interest some of the members of the society, I proceed to give an account of the experiments with Guano at the Kirk Onchan Nursery,

On a soil there of a light and poor nature, which would most decidedly deserve the name (to use the language of the farmer) of a hungry soil, were growing and still grow, two patterns of grass—one of Stickney's rye-grass, mixed with small quantities of holcus lanatu (woolly soft grass) and poa trivialis, the other of Italian rye-grass. A space was measured off from each of these patches, and on the 12th of May last both the spaces so measured off were top-dressed with Guano, with great care, at the exact rate of three cwt. per acre.

On the 20th of June following, one square yard of the dressed and undressed spaces, taken as fairly as possible, was cut and carefully weighed in the presence of Lawrence Adamson, Esqr., of Douglas, who had taken great interest in the experiments.—The following were the results:—

FIRST EXPERIMENT.

Stickney's rye-grass, and small quantities of Holcus lanatus, and Poa trivialis.

Of one square yard, dressed with Guano at the above rate, the produce weighed..... 7¼lbs.
Of ditto not so dressed..... 2¾

SECOND EXPERIMENT.

Italian rye-grass.

Of one square yard, dressed with Guano as above, the produce weighed.....10½lbs.
Of ditto not dressed..... 4¾

The Guano was also applied at the same time (12th of May), and at the same rate, to a row of young elms, and on the 20th of June this row could be distinguished, even at a considerable distance, from the others, by its deep and healthy green, and more free and vigorous growth.

The Guano was also applied to a row of larches with precisely similar effects, the neighbouring rows decidedly partaking of the benefit of the application.

On a row of strawberries, and the neighbouring rows, effects similar to the last were produced.

The Guano has also been applied, after the above rate, to different kinds of potatoes, to Swedish turnips, to Mangel Wurzel, and other vegetables, in competition with dung. The growth produced by the Guano has, in all these cases, been exceedingly healthy and vigorous, but it is yet too early to give the complete comparative results.

In the mean time, I have this day produced to the society, specimens of turnips and mangel wurzel, as grown on each manure.

The extraordinary consequences of the experiments on the grasses seem (it is most respectfully submitted to the society) to leave little doubt of the excellence of the Guano, as a top-dressing for the general run of land under grass for hay.

THOMAS LYLE.

Onchan Nursery, August, 1842.

The report was listened to with much attention, and loudly cheered on its conclusion.—*English paper.*

EDUCATE YOUR CHILDREN EARLY.—What is the object of education? To form the character. How is this to be done?—Not by lessons, but principally through the influence of example, and circumstances, and situation. How soon is the child exposed to these influences? From the moment it opens its eyes and feels the pressure of its mother's bosom—from that time it becomes capable of noticing what passes around it, and knowing the difference of one thing from another. So powerful are the gradual and unnoticed influences of these early months, that the infant, if indulged or humoured, may grow into a petty tyrant at ten months old, and tottle about in two years, a selfish, discontented, irritable thing, that every one but the mother turns from in disgust. During this period, every human being is making its first observations, and acquiring its first experience; passes his early judgments, forms opinions, acquires habits. They may be ingrained into their characters for life. Some right and some wrong notions may take with firm hold, and some impressions, good or bad, may sink so deep as to be with scarcely any force eradicated. There is no doubt that many of those incurable crookednesses which we attribute to nature, would be found, if they could be traced, to have originated in the early circumstances of life; just as a deformed or stunted tree, not from any natural perversity of seed, from which it sprung, but from the circumstances of the soil and situation where it grew.—*Journal of Education.*

EARLY FORMATION OF GOOD HABITS.—If a child is neglected till six years of age, no subsequent education can recover it.—If to this age it is brought up in ignorance and dissipation, in all the baseness of brutal habits, in that vacancy of mind which such habits create, it is in vain to try to reclaim it by teaching reading and writing. You may teach it what you choose *afterwards*, but if you have not prevented the *formation of bad habits*, you will teach in vain. With children under the age of six years, learning—school learning—should not be the chief consideration, but the formation of moral principle.—*Brougham.*

READING.—Of all the amusements that can possibly be imagined for a hard-working man after his daily toil, or in its intervals, there is nothing like reading an interesting newspaper or book. It calls for no bodily exertion, of which he has already had enough, or perhaps too much. It relieves his home of its dullness and sameness. It transports him into a livelier and gayer, and more diversified and interesting scene; and while he enjoys himself there, he may forget the evils of the present moment fully as much as if he were ever so drunk, with the great advantage of finding himself the next day with the money in his pocket, or at least laid out in real necessaries—and without the drunkard's misery of mind and body. Nay, it accompanies him to his next day's work; and if what he has been reading be any thing above the idlest and lightest, gives him something to think of besides the mere mechanical drudgery of his every day occupation—something he can enjoy while absent, and look forward with pleasure to. If I were to pray for a taste which should stand me instead under every variety of circumstances, and be a source of happiness and cheerfulness to me through life, and a shield against its ills, however things might go amiss, and the world frown upon me, it would be a taste for reading.—*Sir J. Herschel.*

SMITHFIELD ON A MARKET MORNING.—There is much to see and something, it may be, to smell, in Smithfield on a market morning. Its penned thousands of Leicesters, South Downs, and Merinos—its countless thousands of fatted swine—its multitudes of bleating lambs, pretty dears, so soon to be swallowed with mint-sauce, salad, and the usual *et cetera*s—its streets of living oxen, whose broad backs form a level leathery floor, over which you often see adventurous drovers, stick in hand, take their desperate way. Corpulent graziers, with leathern pocket-book crammed with Bank of England notes; enterprising knackers, wholesale dealers in that favourite article of food—horse-flesh, subsequently retailed to the lieges in "a la mode" beef, mutton pies, sausages, and a variety of other fancy costumes; lynx-eyed salesmen, who have but to glance at a beast to know how many stone he weighs, offal inclusive; journeymen butchers looking for a job; policemen on the scent for a roving pickpocket; chawbacons in smock frocks, munching bread and cheese, or gazing listlessly around from the secure eminence of a waggon load of hay; shepherds and drovers from all quarters of the agricultural world, and you have a morning at Smithfield.—*The World of London, in Blackwood.*

EXTRAORDINARY ROOT OF BARLEY.—A single root of Barley was exhibited at the meeting of the North Suffolk and South Norfolk Agricultural Association on Wednesday last, which consisted of 122 distinct ears. This root was the produce of one grain of barley. Half a perch was planted in single grains on an acre of land in rows four feet and half apart, and twelve inches distant in the rows, and produced forty-four bushels.

A great natural curiosity was also exhibited, being a small branch of a tree, the leaves on one half of which are horn-beam, and on the other American oak. There are three of these trees now growing near each other in the county of Norfolk, all of the same description. They are apparently of twenty-five years growth, and it does not appear that this remarkable phenomenon has ever before been observed.—*English paper.*

The following report of a Lecture delivered by Dr. MADDEN, at the late meeting at Edinburgh of the Highland and Agricultural Society of Scotland, we copy from the reported proceedings on that occasion, which are highly interesting:—

"At three o'clock, Dr. Henry R. Madden, Penicuik, proceeded, in presence of a numerous audience, assembled within the Society's museum, George the Fourth's Bridge, to deliver a lecture 'On the condition of the soil at seed-time, as influencing the future prospects of the crop.' Lord Dunfermline occupied the chair.

"Dr. MADDEN began by adverting to an error which to some extent prevailed, that before the farmer could apply chemical discoveries to the purposes of his own pursuit, he ought to be in truth a chemist. It was as absurd to say so as it would be to say that no one could follow medical advice unless he were a physician, or that no one could make use of a watch unless he knew all its mechanism. He proposed simply to give an account of the different variety of soils at the time of putting the seed into the ground; and in the course of his observations he trusted he would be able to show that theory and practice were not so diverse as they were generally supposed to be.—The science of all arts was discovered by looking into the practical effects. The first thing that occurred to the seed after sowing was germination—to which process, air, moisture, and a certain degree of warmth were necessary. The soil was the vehicle through which these were communicated to the seed. With respect to the mechanical properties of the soil, it consisted of particles of various shapes and sizes, and these were generally porous, though some of the smallest assumed a solid form. The fine dust of soil is found by the microscope to consist of broken down vegetable matter, and he had endeavoured to give a representation of the character of those particles in several diagrams, (to which Dr. Madden then referred in detail, to illustrate the variety in soils). There were two distinct kinds of pores; first, those which ran between the different particles, and secondly, those which existed in the particles themselves. The diagrams represented soil when the pores were supplied with air alone, where the pores were superabundantly supplied with water, and with water alone, and when the pores in the particles were supplied with water while the other pores admitted air. The last was the proper state of the soil. Another diagram represented soil in which the interstitual pores were obliterated; this was in fact a clod, and of no more use for germination than a stone. The first state of too great dryness was very rare in this country, occurring in coarse sand, and the mode of detaining the moisture adopted in some places was to leave the stones on the surface, so as to prevent the evaporation of water. In the second instance, the water was absorbed by the pores of the particles passing through the canals, and the soil remained damp or moist, but was not wet. If, however, from the occurrence of spring water too much water for the pores was furnished, the canals must of necessity be filled. This was the condition of undrained soil, and the whole process of germination and vegetation were materially interfered with. Hence the necessity for thorough-draining. The first effect of this state of soil was to exclude the air, which was essential to germination; the second was considerably to reduce the temperature of the soil in summer to the extent sometimes of six and a half degrees, which was equal to an elevation of 1,950 feet above the sea—so that supposing two fields on the same level, one of which was in a proper state, and the other was undrained, the difference was the same as between a field near the level of the sea and a field as lofty as the highest of the Pentland Hills. But while the temperature was lowered during summer in undrained soil, it was rendered unnaturally high in winter; for while the change of temperature amounted to between thirty and forty degrees in the course of the year, the temperature of soil saturated with water ranged only between some 6 or 7 degrees; and thus the healthful influence of a variation in the temperature was lost. Dr. Madden then proceeded to show, in like manner, the necessity of attending to the pulverization of the soil, so as to prevent it from getting clodded, and the advantage of drill-sowing. He adverted to the benefits arising from attention to such points as those he had brought under the notice of the meeting, as neglect of the state of the soil, carelessness in sowing, and other circumstances within the control of the farmer to some extent at least, were calculated to affect the seed in its various stages of germination, growth, flowering, and ripening. If any thing caused the plant to flower too early, the produce was not so large as it would otherwise be: and so whatever tended to interfere with the due periods fixed by nature for the healthy performances of these various processes should be as carefully guarded against as possible. After some remarks on the necessity for calling in the aid of practical knowledge to correct the hasty deductions of scientific inquiries, he adverted in conclusion, to the great utility of applying the results of scientific research in the cautious manner which he indicated to the improvement of agriculture—an art which was at once the most important, and the most extensively cultivated.

"After some remarks by Mr. Aitchison, of Drummore, and Mr. Milne, expressing their warm approbation of the lecture, the meeting separated."

PROTECTION OF PLANTS FROM FROST.—Now that the protection of plants from frost is a first object with all possessors of gardens, we wish to direct attention to one fact which is seldom considered. There are many trees which will resist the effects of our frosts without any covering to their heads, provided the roots and stems are carefully guarded and kept dry. Among this number is the Magnolia grandiflora.—Formerly there were trees of this species in Paris—and they may possibly still exist—whose only protection in the winter was a heap of dry straw piled over the roots, so as entirely to cover them, and thatched to the height of 5 or 6 feet, so that the head of the trees formed the apex of a cone, the body of which was straw. By this precaution, the earth is unable to freeze, and the fluids in the interior of the tree are maintained at a temperature approaching to that of the earth. While, on the other hand, if the earth is frozen hard, the fluids in the roots are frozen also, and they thus tend to lower the temperature of the fluids and the branches.—But this is probably not the only reason why tender trees are preserved by this kind of protection. It is to be observed, that the destructive effects of frost are in proportion to the succulence of the parts on which it acts; and it may be, that the contracting influence of cold gradually forces the fluids out of the unprotected branches into those lower parts which are guarded from the action of cold. Then the branches being *pro tanto* emptied of fluid, or, we may say, dried, are thus deprived of a part of their susceptibility to cold. Those who are disposed to try the effect of protecting plants by thatching or burying their roots and stems must, however, bear in mind the necessity of the substance employed being dry, and applied in such quantity as to keep the earth really protected from frost. All the tender roses may probably be preserved in this way.—*Selected.*

FLAX.—It is considered the best management of flax to be dried after pulling, and safely kept under cover until the following year before it is steeped, it is then steeped in the following manner in Flanders:—

"The flax, before going into steep, is neatly bound in large bundles, with a strap round each end, and one in the middle, care being taken to have the ends very even. It is then laid nearly upright in the water, after the manner in which it grew, each row inclining against the other. It is then covered with straw and mud—(stones would do better, but they are not easily had here).—It remains in this way, until it has sufficient water, which is known by the fibre turning a little glutinous, and leaving the straw freely, when broken about the middle. It is, immediately that it is ready, taken up, and put into binns, or on its end, to drain for two days: afterwards spread out on the grass—for how long I cannot say, as its stay there will be retarded or accelerated by the good or bad state of the weather."

THE USE OF SNUFF.—With that he thrust his hand into one of the large flaps of his waistcoat, drew out a ponderous gold box, extracted enough from it of a black looking powder to have charged a musket, and crammed the dust up his left nostril. "May I ask what that stuff is?" said the Chevalier; "I have seen a great number of persons stopping their noses with something of the same kind, as if this country were famous for bad smells, and they wanted to keep them out." "I will tell you what it is, Chevalier," said Mr. Longshanks; "it is what we call snuff, the power of a poisonous weed, which by this process is rendered very serviceable to our frailties. I have heard that you think us all mad, but that is a mistake; we are only all foolish. This snuff gives a man something to do when he has nothing; spares many an empty head the trouble of making an answer; gives politicians, hypocrites, and knaves time to compound a lie when they have not one ready; furnishes a wise look for a fool's face; enables men by a grimace to cover an emotion, and prevents people leading you by the nose, for fear of dirting their fingers.—*The Commissioner.*

THE ARRANGEMENT OF THE FARM—FENCES—GATES—AND GARDEN.

Arrange your house in order due,
Your garden, gates, and fences too;
Neglect's offensive, and what's worse,
It helps to make an empty purse.

KEEPING UP OF APPEARANCE.—Dr. Franklin says—"The eyes of other people are the eyes that ruin us. If all but myself were blind, I should neither want a fine house nor fine furniture."

PREPARATION OF LAND FOR CROPS.

(*Continued from our last.*)

In this case, the land may be ploughed in a direction at right angles to the previous ploughing, that is, in the direction in which the future ridges are to run; but it will be better to plough somewhat diagonally, that is, nearly in the direction from corner to corner of the field. This is done in order that two successive ploughings may not be in one direction, for the next ploughing to be given, as we shall immediately see, must necessarily be lengthwise in the direction of the ridges. But by deviating from this direction with the ploughing now to be given, the two successive ploughings will cross each other, and thus the tilling will be better performed.

No sooner is this diagonal ploughing completed, than the process of harrowing, rolling, and cleaning the ground of the roots of vivacious weeds, is to be renewed, precisely as after the preceding ploughing. It is not necessary or expedient that the process of harrowing shall be carried further than is absolutely required to disengage the weeds; but to this extent it is important that it be carried, so that the land may now be cleaned.

These two ploughings, with their corresponding harrowings, are of the utmost importance in the management of the summer-fallow. If the weather has been favourable, the land may now be expected to be effectually cleaned, and thus far to be in good order. Sometimes a further ploughing may be required for the purpose of completing the cleaning process, but whether this be so or not, the land ought now to be formed into ridges. This is necessary, in order to provide against the contingency of heavy rains, which, were they to occur at this period, when the land is laying in a flat state, might so soak it as greatly to retard the future labours.

We now, therefore, proceed to strike the furrows in the manner formerly explained. The land is then ploughed and formed into ridge, and this completes the fifth ploughing which it has received. The land will generally be now ready to have the dung laid upon it. But in some cases it may require a sixth ploughing before it is sufficiently cleaned and prepared for the dung. In this case, the land being harrowed, and the remaining weeds collected as formerly, it is ploughed again in the line of the ridges.

We may proceed, however, upon the supposition that this further ploughing and cleaning are not required, and that the land, after the fifth ploughing, is ready for the application of the dung. This may bring us, in the ordinary course of farming, to the month of August.

Now the dung, according to the practice before described, has been previously carried out and laid in large heaps in the field, where it has undergone a certain degree of fermentation. Should this not have taken place sufficiently, the heaps must be turned, so that the dung may be brought to a fit state for use.

The dung is now conveyed to the land in carts from the heaps, the carts being driven along the ridges. It is dragged out from behind by the workman with the dung-drag into heaps, as nearly as possible of equal size, and at equal distances, in rows along each ridge. Sometimes, to ensure accuracy, the ridges are divided by furrows run across them, into rectangular spaces each space receiving its allotted quantity of dung. But in general, the eye and practical knowledge of the workman, will enable him to drag out and deposite the heaps in the quantity and with the accuracy that may be required.

Several persons, who may be females or young lads, then spread out the dung all across the ridge, by means of light three-pronged forks. This operation should be done with much attention, so that the dung may be spread regularly over the ridge.

Close upon the work of the spreaders, the ploughs are to follow and cover the dung. This is done by gathering the ridge, so that, while the ploughing covers the dung, the curvature of the ridge is increased.

The dung being covered in this manner, and the ridge raised, the land is to remain untouched for a few weeks, so that the dung may be decomposed and incorporated with the soil. When the dung has been previously fermented in a proper manner, this incorporation will be completed in a very short time.

The land is now ready to receive what is called the seed-furrow, which is the ploughing given to it previous to the seeds being sown. In this ploughing the ridge is again gathered, but the ploughing being very shallow, it has little effect in raising the ridge higher.

After this final ploughing, and upon the surface now exposed, the seeds, usually of wheat, are to be sown, in the manner to be afterwards described. This generally takes place about the middle of September or later, and completes the important operations of the summer-fallow and sowing of the wheat-seeds.

In this detail the manner of applying the dung has been described; but there is likewise to be considered the manner of applying lime, when this substance is to be laid upon the land in summer-fallow.

There are two periods at which the lime may be applied,—either before the dung is laid on, or afterwards. In the former case, the lime may be laid on just after the land has been formed into ridges, and when it is ready to receive the dung.

The quicklime, as it is brought from the kilns, may be laid down in heaps of about five carts each, at regular distances, upon the head-lands or where convenient. In this case, it is brought to the farm as opportunity offers, and slacked slowly and regularly.

When we are prepared to spread it upon the ground, a person with a broad-pointed shovel is appointed to each heap. He fills his cart, drives it along the ridge, and spreads the lime abroad upon the surface, taking it out with his broad-pointed shovel from the cart behind; sometimes two carts and two men may be appointed for each heap, the one man filling the cart at the heap and the other spreading the lime upon the ridge.

Both men and horses sometimes experience injury from the caustic effects of the lime, especially when the weather is moist. The face of the man may be defended by a thin handkerchief, and the back of the horse should be covered.

When the lime is spread, the land must be immediately harrowed, to incorporate the lime with the soil. This being done, the dung is to be spread upon the ground, and covered by the plough in the manner before described.

But frequently the dung is first spread, and the lime is not laid on until just before giving the seed-furrow. This answers very well, provided the land has lain a sufficient time after the dung has been spread, so that it may be decomposed and mixed with the soil.

These details have an especial reference to the stiffer soils, which are those on which the summer-fallow is generally practised. When the lighter soils are to be fallowed, the process of cleaning is more easy, and there is less hazard of serious interruption from the state of the weather. The only variation with regard to the lighter soils that need be referred to, is in the first spring-ploughing. In the case of such soils this ploughing may be given at once across, and the process of harrowing and cleaning then commenced. This is precisely the management pursued in the case of turnips and similar fallow-crops; so that, when the learner comprehends the operations of the summer-fallow thus far, he is acquainted with the manner of preparing the land for an extensive and important class of plants.

In the preceding detail, the ordinary operations of the summer-fallow have been described; but the nature of the seasons, the state of the land, the prevailing weeds to be eradicated, and other circumstances, produce variations in the course of management, which, however, it is not necessary here to point out. They are little subject to rule, but are best determined by the judgment of the farmer, as the cases themselves arise. A more important purpose is served to the student of agriculture by pointing out to him the manner of managing the summer-fallow upon approved principles. Knowing this, a little experience will soon show him how to adopt those variations of practice which the state of the season and other circumstances may render expedient.

The process of the summer-fallow, conducted as it should be, enables us to effect the tillage of clay-lands in a manner calculated to eradicate weeds, and fit the land for bearing a lengthened rotation of crops.

After a complete summer-fallow, the land is seen to be in the best order which circumstances will allow. It acquires that mellowness, indicative of fertility, so familiar to the eye of the farmer, yet so difficult to be described. It is frequently observed by farmers, that clay-lands in this climate get into an adhesive, and, as it is termed, a sour state, by the long repetition of crops. The giving them from time to time the mellowing influence of a summer-fallow, during which weeds may be extirpated and the manures applied in the most beneficial manner, is found to have the best effects in restoring the fertility of the soil and fitting it to yield an increased produce in succeeding years. One advantage, too, of the summer-fallow, not to be disregarded, is, that it divides the labour of tilling a farm more regularly throughout the season."

RECEIPT FOR THE CURE OF GALLED BACKS OF HORSES.—Apply white-lead mixed with milk. Should this fail, and boils begin to swell up near the part which has been chafed, change it for a small quantity of slacked lime sprinkled on the galled spots twice a day, till a crust is formed, and give the horse some saltpetre. An ounce should be dissolved in half a gallon of water, and sprinkled on his hay daily. This is often useful if the horse was very much heated at the time he was galled. When the skin is healed, keep it always blacked with a mixture of tallow and burnt cork till the hair grows. This will often bring hair of the original colour. If cork cannot be procured use alder coal.

FOR THE CURE OF A STING OF A WASP OR BEE.—Ammonia, or that called "Spirit of Hartshorn," is an effectual remedy for the sting of a wasp or bee.

AGRICULTURAL PROTECTION.

TOWNSHIP OF ESQUESING.

A public meeting was held lately in the above Township, called in due form by the Town Clerk, in compliance with a requisition signed by several respectable freeholders. The object of the meeting is so clearly explained by the subjoined Petition, to both branches of the Legislature, that it foregoes the necessity of any comment on our part.

We would however, beg to suggest the propriety of a similar petition being drawn up, and presented for signatures at each Town Meeting throughout the Province, which takes place on the first Monday in January next.

Agricultural Societies should also take up the question with spirit, at their next annual meeting. The boon which has been so long withheld, is now within our grasp, if all that are interested be united and true to each other.

"That agriculture, including both the tillage of the soil and the grazing of cattle, is a perpetual source of national wealth and prosperity, and the necessary basis of all manufactures and commerce.

That its encouragement has, therefore, under every wise government, and in every well-regulated state, been uniformly considered as a measure of primary importance, and the neglect of that encouragement, where it occurs, must never fail to be esteemed a serious error in those who preside over the administration, and an absurd anomaly in the fundamental maxims of national policy.

That previous the year 1832, certain duties existed in Canada on the importation, from foreign countries of flour, wheat, and other grain, on live stock, and on beef and pork salted.

That in consequence of a casual, and, consequently, a temporary scarcity in the Province, an act was passed in that year, called the "Canadian Trade Act," which gave free admission to all foreign agricultural produce.

That thereafter, when the reasons which induced the passing of that act ceased to operate, and when abundance, and often a superabundance, of agricultural produce occurred in the Province, this act was still allowed to continue, although protection was repeatedly solicited by petitions to the Provincial Legislature, and although each successive Parliament concurred in the necessity of affording that protection, by voting addresses or passing resolutions for imposing an adequate duty on United States produce.

That an extraordinary impetus in every branch of agriculture has for some time past been fostered in the Union, and especially in the Western States, in the production of wheat, and rearing and fattening of pork. That if this impetus has been caused to a certain extent by the prudent and encouraging system of protection afforded by that Government to agriculture, it has unquestionably been not less so by the injudicious, if not infatuated privation of that protection in this Province; and yet the farmers here have, by the ignorant and unfeeling, been taunted for an alleged want of energy, in not being able under such a glaring disparity, to compete with those of the United States.

That the only reason which the petitioners are aware of having ever been assigned for withholding the protection now craved, are two, viz.: — 1st Because such protection would be repugnant to the principles of free trade, and, 2nd. Because it would be prejudicial to the interests of the interests of manufacturers of flour, and of the forwarders on the lakes, canals, and rivers of British America.

That the former of these objections is so palpably absurd, that the petitioners cannot help suspecting it to have been advanced in irony. That free trade must from its very nature, be essentially reciprocal; but what reciprocity can exist between the Canadian farmer, who dare not enter a market in the States, without paying a duty of not less than 25, and sometimes 70 or 80 per cent. on the produce and the inhabitants of the Union to whom the markets on both sides of the line are at all times freely open?

That in regard to the latter objection,— that the protection would be prejudicial to the interests of the millers or manufacturers of flour, and of the forwarders on the lakes, canals, and rivers of British America,— in the maxim be true with which the petitioners started, (and of its correctness they can possibly entertain no doubt), viz.: that agriculture is the necessary basis of all manufactures and commerce, it does not appear that the apprehensions have any foundation either in fact or in reason. That in point of fact, it is well known to be a common boast of the millers of Rochester, (New-York), that millions of barrels of flour manufactured by them, are now shipped to Britain as Canadian flour; and it is apparent that, in reality, the removal of that protection, which in every well-governed state, is deemed essential to the support of its agriculture, has been no boon whatever to the Canadian miller, while, on the other hand, it is evident to a demonstration, that every encouragement given to agriculture must have an immediate, a reciprocal, and an equally favourable effect on all trades, manufactures, and professions whatever within the colony.

That even although it were admitted that there might possibly be some ground for entertaining the apprehensions now alluded to, your petitioners respectfully crave your Honourable House to remember, that this Province has been unanimously declared to be an agricultural Province; that it has been recommended as such by the Mother Country, to the multitude who have thronged either upon her shore, to seek a refuge from the gaunt jaws of want and misery, that your forests, and the wilds in this Province dependent upon agricultural pursuits, thus augmented, are now more than nine-tenths in number of the aggregate [illegible] of the whole Province, and that it is equally a breach of faith, an absurdity in legislation, and a solecism in practice to sacrifice the interests of the majority—and of such a majority—to the visionary project of fostering a precarious and of course a [illegible] branch of industry. That it is a gross error in politics to suppose, that either manufactures or commerce can permanently flourish, where the agricultural prosperity of the country is [illegible], and, on the contrary, it is a sound political axiom, that agriculture — support it, and all subsidiary branches of industry will inevitably flourish. Depress it, and they too must receive the shock.

That your Petitioners anxiously hope that your Honourable House are but too sensible of the glaring injustice to which they have hitherto been subjected, by the privation of that protection which they formerly enjoyed.

May it therefore, please your Honourable House, to adopt the necessary measures for imposing such a duty on the importation, from abroad, of grain, flour, live stock, fresh and salted meat, and other agricultural produce, as will afford a competent protection to the Canadian farmer, at least equivalent to that enjoyed by the same profession in the United States.

And your Petitioners will ever pray, &c.

From Liebig's Agricultural Chemistry.

Whatever views we may entertain regarding the origin of the fatty constituents of the body, this much at least is undeniable, that the herbs and roots consumed by the cow contains no butter, that in hay or the other fodder of oxen no beef suet exists; that no hog's lard can be found in the potatoe refuse given to swine; and that the food of geese or fowls contain no goose fat or, capon fat. The masses of fat found in the bodies of these animals are formed in their organism; and when the full value of this fact is recognized, it entitles us to conclude that a certain quantity of oxygen, in some form or other, separates from the constituents of their food: for no fat could possibly be formed from any of these substances.

The chemical analysis of the constituents of the food of the graminivora shows, in the clearest manner, that they contain carbon, and oxygen in certain proportions; which, when reduced to equivalents, yield the following series:—

In vegetable fibrine, albumen, and caseine, there are contained:—

For.....	120 eq. car.	36 eq. oxy.
In Starch.....	120	100
In cane sugar...	120	110
In gum.....	120	110
In sugar of milk	120	120
In grape sugar..	120	140

Now in all fatty bodies there are contained, on an average:—

For..... 120 eq. carb, only 10 eq. oxy.

There is, therefore, but one way in which the formation of fat in the animal body is possible, and this is absolutely the same in which the formation in plants takes place; it is a separation of oxygen from the elements of the food. And this oxygen, in fact, is given out in the same forms as that which is absorbed from the atmosphere by the blood in the lungs. It is easy to see from the above consideration, that a very remarkable connection exists between the formation of fat and the respiratory process.

In the British Isles, farmers very generally, contract with black-smiths annually, for their work. Near Edinburgh, farmers pay about three pounds per annum for each pair of horses, constantly kept at work, including shoeing, plough, and cart repairs, but no renewal of these latter implements. In Scotland, these horses, ploughs, and carts are constantly kept at work throughout the year. In Canada, the charges of blacksmiths are extremely high, and for every trifling job, a charge is made, that runs a large amount annually, for the whole of the work done for a farmer. The system of making annual contracts should be introduced, and it would prevent much imposition, and the necessity of keeping a [illegible] of accounts.

TO KILL WEEDS.

Is there any manure that will kill *weeds?* is a question not unfrequently put. Will nitrate of soda, or nitrate of ammonia, or guano, or urates? That such questions should be asked, proves one thing at least, that there is a general desire to know how to extirpate weeds. We wish we could add that they also indicate some acquaintance with the rudiments at least of vegetable physiology.

Weeds, like other plants, have each their peculiar constitution, prefer certain kinds of food, and perish on the application of others. We have seen a pound of nitrate of soda administered to a Seakale plant without visible effect; half an ounce would probably destroy a Rhododendron. Common stable manure is prejudicial to Coniferous plants, and in overdoses will kill them; an oak feeds greedily upon it. So it is with weeds. Excessive doses of salt will destroy all ordinary vegetation, weeds included, but promote the growth of asparagus in a most remarkable degree, thus proving itself to be a poison to one plant and a nutritious food to another. But salt cannot be used in large doses to extirpate weeds generally, because some, like the asparagus, may flourish under its action, and most crops will certainly be destroyed by it. Professor Henslow succeeded in destroying moss and weeds on gravel walks, by means of corrosive sublimate, green vitriol, and blue vitriol, especially the last. But corrosive sublimate destroys every living form of vegetation, as well as the weeds; and the two sorts of vitriol have no permanent action, encouraging the subsequent growth of many sorts of plants, and so promoting the vegetation of weeds rather than destroying it.

In practice, these chemical agents can only be employed for the destruction of weeds in certain special cases, such as the asparagus, which thrives under doses of salt, which kill most other plants; or as tobacco, which feeds greedily upon quantities of nitrate of soda, which would destroy any ordinary vegetation. In general, we must look to other means for ridding ourselves of troublesome weeds, and we shall find those means in *industry* and *common sense.* The two separate are good things, but they are better mixed together. The plain and obvious rule is to pull weeds up as fast as they appear, and while still in the state of seedlings. Then every plant that is removed is effectually destroyed, and leaves no young ones behind it. Any boy, at a half-a-crown a week, can be taught to distinguish them; and if the plan is persevered in, there will very soon be nothing for the boy to do. Strict attention must, however, be paid to their thorough extirpation when young; it will not do to pull up *almost* all, and to leave the remainder to seed; for in that case the labour has to be all gone over again.—*Loudan's Gardeners' Chronicle.*

AMERICAN TARIFF.

We were lately presented with a reprint of an official copy of the new Tariff law of the United States, but are able only to give the following extract which has a particular bearing on the agricultural interests of British America:—"On beef and pork two dollars per one hundred lbs.; on cheese, nine cents per lb.; on butter, five cents per lb.; on lard, three cents per lb.; on wheat, twenty-five cents per sixty pounds; oats, ten cents per bushel; rye, fifteen cents per bushel; wheat flour, seventy-five cents per one hundred and twelve pounds; potatoes, ten cents per bushel."

It will be seen by the above scale of duties, that the agriculturists of the United States are sufficiently protected from foreign competition: indeed, the duties on many articles are so high that they will amount to a direct prohibition of foreign produce. It is only natural and reasonable to expect that other agricultural countries, who have extensive intercourse with the United States, would meet them on their own ground and reciprocate a scale of duties to be levied on the produce of the soil and industry of the United States flowing into theirs.

American Cheese, has been sold within the last few weeks, in the Canadian market, for 7½ cents per pound, one and ½ cents less than Canadian cheese would be admitted into the market of the United States!! About two weeks since we saw upwards of eighty head of horned cattle, principally oxen, purchased in the State of Ohio, for $26. per pair on an average. We would judge each beast to weigh on an aggregate 600 lbs. nett weight, making the original cost of each beast a fraction more than oxen of the same weight would be admitted from Canada into the United States market!! These are incontrovertible facts and argue the necessity of immediate steps being taken by the powers that be, to levy a scale of duties on these articles commensurate with the importance which the subject demands.

TO OUR SUBSCRIBERS AND AGENTS.

We take this opportunity of tendering our sincere thanks for the noble manner in which you came forward, in support of the only publication devoted exclusively to the advancement and protection of Canadian Agriculture.

We have with this number fulfilled our engagements to you, and in conformity with our terms commence the Second Volume without a single subscriber. We trust however, we have done our duty so far as to merit your future patronage and support. Our success will depend much upon your exertions, which we hope to merit.

The Cultivator in future will be more uniform in its appearance, and from the increased facilities which we have at our command, will be more select and useful.

A REQUEST.

We are led to believe that our journal will receive an enlarged circulation the ensuing year, and it is desirable that we should commence an edition sufficiently large to supply the demands during the whole year. Our Agents will do us a favour by informing us, on the receipt of this, the probable number of copies that each may require during the next year. Of course they cannot always form a correct estimate, but by giving us their opinion we will be better acquainted on the subject, than if we had no grounds to form a conclusion. A Circular will be issued in a few days which will be sent to all our Agents.

The Brock District Cattle Show.—Notice should have been taken of the above Show in our last, but the remarks we prepared for the occasion were unavoidably left out. The subject shall be attended to in our next.

☞ Some of our Subscribers have complained of not receiving certain numbers of our journal, if such be the case they may be had by ordering them through our Agents: and any that wish the work bound complete and are deficient in numbers may be supplied, as we have a number of broken sets on hand.

From The Cobourg Star.

COUNTY DURHAM AGRICULTURAL SOCIETY.

The Autumnal Show of this Society took place at Bowmanville on the 18th Instant, for the exhibition of Stock, Grain, &c., when the undermentioned Premiums were justly awarded to the respective candidates by Judges from the Northumberland and Whitby Agricultural Societies.

	£.	s.	d.
Best Brood Mare, with foal at foot, T. Garnet	2	0	0
Second best, John Frank	1	0	0
Best Milch Cow, R. W. Robson	2	0	0
Second best, J. Broadfoot	1	5	0
Best Two Year Old Heifer, J. Middleton	1	5	0
Second best, Henry Munro	0	15	0
Best Pair of Two Year Old Steers, M. Joness	1	5	0
Second best, J. Broadfoot	0	15	0
Best year old Heifer, M. Joness	1	0	0
Second best, John Belwood	0	10	0
Best Pair of one year old Steers, J. Blackburn	1	0	0
Second best, J. Broadfoot	0	10	0
Best aged Ram, J. Middleton	1	10	0
Second best, R. W. Robson	1	0	0
Best Shearling Ram, J. Belwood	1	0	0
Best Tup Lamb, John Gibson	0	15	0
Second best, do.	0	10	0
Best Ewe, do.	1	0	0
Best Pen of Three Ewes with their lambs John Gibson	1	5	0
Second best, J. Belwood	1	0	0
Best Pen of Two Ewes with their lambs, not full bred, J. Middleton	0	15	0
Second best, M. Joness	0	10	0
Best Boar, John Beavis	1	10	0
Second best, Robert Brown	0	15	0
Best Breeding Sow, R. W. Robson	1	0	0
Second best, George Wylie	0	15	0
Best Acre Swedish Turnips, J. Belwood	1	10	0
Second best, Dickinson	0	15	0
Best Sample of Fall Wheat, S. Dickinson	1	10	0
Second best, J. Blackburn	1	0	0
Best Sample of Spring Wheat, John Smart	1	0	0
Second best, John Lyal	0	10	0
Best Sample of Barley, Robert Beith	1	0	0
Second best, J. Broadfoot	0	10	0
Best Sample of Oats, R. W. Robson,	1	0	0
Second best, Neill Gray	0	10	0

Notwithstanding the very unfavourable state of the weather which prevented many from attending, the assemblage of members of the Society was very numerous, and the exhibition of Stock and Grain, marked for numbers, variety, and of a decided advancement in improvement, evincing most forcibly the beneficial effects produced by the establishment of such Societies in the country.

The business of the day being concluded, upwards of forty gentlemen sat down to an excellent dinner, provided by Mr. Hynes, after which several loyal and appropriate toasts were drank, and many judicious remarks made. Arrangements having been entered into for a Ploughing Match, to take place at an early date, the party separated with feelings of much satisfaction and pleasure.

MORGAN JELLETT,
Secretary.

Port Hope, 22d October, 1842.

TORONTO MARKETS:

For the Month ending 1st November, 1842.

	s.	d.		s.	d.
Flour Farmers', in barrels	15	0	a	17	6
Oatmeal, per barrel	11	3	a	17	6
Wheat, per bushel	2	9	a	3	9
Rye, do,	2	6	a	3	0
Barley, do,	1	3	a	2	0
Oats, do,	0	9	a	1	0
Pease, do,	1	6	a	1	8
Clover Seed, do,	25	0	a	30	0
Grass Seed (Timothy), do,	4	1	a	5	6
Potatoes, do,	1	0	a	1	3
Pork, per 100 lbs.	10	0	a	15	0
Beef, do,	10	0	a	15	0
Mutton and Veal (qr.) per lb.	0	2	a	0	3
Butter, do,	0	10	a	1	6