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# AGRICULTURAL JOURNAL,

AND

## TRANSACTIONS

OF THE

### Lower Canada Agricultural Society.

Vol. 5.

MONTREAL, MAY, 1852.

No. 5.

We feel it a matter of some difficulty to conduct this Journal so as to give satisfaction to all parties who may read it. We have constantly invited Correspondents in order that the views and opinions of others, in regard to the best means of promoting agricultural improvement, should be brought before the public for consideration, and we have given insertion generally to communications addressed to us for the Journal, and would have been always happy to have published letters from any other parties who would entertain different views from those that have appeared in the Journal. This publication is not that of a party, or intended to advocate party or sectional views, but to promote as much as possible the general improvement of agriculture, and, if it is not considered to be conducted suitably for that purpose, its columns are at all times open to the friends of agriculture to make it more useful, and also to correct or refute any errors or erroneous statements it may contain from time to time. We often submit our own ideas in order to elicit the views and opinions of others, and we conceive this publication to be a very proper medium for discussing subjects connected with agricultural improvement. The Directors of the Lower Canada Agricultural Society have done all, that could reasonably be expected of them, to obtain the friendly and hearty co-operation of the County Agricultural Societies and other parties interested in Agriculture in Lower Canada. Last year they had about sixty letters, of which there was an equal number in the English and French language, addressed to Presidents of Agricultural Societies, and to other respectable parties throughout the country, requesting information

and their opinion and advice on various subjects connected with agriculture. To several of these letters there was no reply, but all the replies that were received were placed before the Provincial Parliament last Session, without note or comment, and they are now published in pamphlet form by order of the Legislative Assembly, together with the Report of the Special Committee of the Legislative Assembly on agriculture, and the Report of the Lower Canada and Beauharnois Agricultural Societies. The Directors of the Society have this year elected the several Presidents of the County Agricultural Societies Honorary Members of the Lower Canada Agricultural Society, and invited them to an Agricultural Congress, which took place at Montreal in February last, in order that they might give their opinion and advice as to the best means to be adopted to promote agricultural improvement. The two last numbers of this Journal, which contained the proceedings of the Congress and other interesting reports, have been sent to the Presidents of County Agricultural Societies, with a respectful request that they would communicate their views and opinions on these several subjects. It must, therefore, be manifest, that the Lower Canada Agricultural Society have made the most friendly advances to the County Societies, and to other influential parties, to unite with them in promoting the general improvement of agriculture, by such means as might be considered best calculated to accomplish that object. The Society, as a provincial one, have adopted the only means in their power of communicating with every section of Lower Canada by the publication of this Journal, which has been sent to every parish in the country. If

improvement is desirable, we cannot see what other means are in the power of the Society to propose and recommend such improvements as might be necessary. If publications of this nature are not calculated to produce any good there must be a great waste of capital in the neighboring States and in the British Isles, by the publication of Agricultural Periodicals where so many are published. What can be better calculated to instruct the ignorant than the successful practice of experienced agriculturists? If these experienced and successful farmers are desirous of instructing and encouraging their less fortunate brother farmers, we offer the columns of this Journal for any and all interesting and instructive communications, and it shall not be any expense to them except the trouble of writing their report for the benefit of their country.

If parties obtain premiums for good stock, good crops, or well-managed farms or dairies, their mode of cultivation and management, by which they obtain successful results, should be reported and made public for the general advantage of agriculturists. This, we conceive, would be the most certain mode of making the expenditure of Agricultural Societies useful, and we cannot see any reasonable objection to it.

We copy the Report of the Committee of the Legislative Assembly of last Session of the Provincial Parliament, which has been published in pamphlet form, with the Annual Report of the Lower Canada Agricultural Society to the Legislature, and several letters received by the Directors of that Society, in reply to Circulars containing various queries on Agricultural Statistics, addressed to country gentlemen throughout Lower Canada. There is also a Report from the County of Beauharnois Agricultural Society. The pamphlet contains very interesting information, and the Report of the Select Committee is a proof of the deep interest entertained by the Provincial Parliament in the progress of Agriculture. It is only by a perfect acquaintance with the state of our

agriculture that we can understand the most suitable measures to be adopted for its amelioration. And by the time the Provincial Parliament assembles, we believe the Government will be in possession of very full and accurate information of the present state of Agriculture in Lower Canada, through means of the answers to the printed circulars distributed by the Office of Registration.

#### REPORT.

The Special Committee, to whom were referred the Annual Report of the Lower Canada Agricultural Society, and the Special Report of the Agricultural Society of the County of Beauharnois, have the Honor to Report, as follows:—

In conformity with the order of reference of your Honorable House, your Committee have examined, with all the care which the subject demands, the Report of the Lower Canada Agricultural Society, and the Special Report of the Agricultural Society of the County of Beauharnois.

Your Committee have understood with great satisfaction, that the publication in French and English, supported by the Society of Lower Canada, and known as "The Agricultural Journal," is going on prosperously, and has a wide circulation.

The Agricultural Society of Lower Canada has set on foot an inquiry, the object of which is the solution of some interesting problems in practical Agriculture in Lower Canada; and your Committee invite the attention of your Honorable House to the documents resulting from that inquiry, annexed to this Report.

Your Committee do not stay to consider the several questions which the Lower Canada Agricultural Society have proposed in the inquiry of which mention has been made, and which especially relate to the practice of Agriculture; Your Committee feeling bound to attend more particularly to that part of the Report which indicates the legislative measures to be adopted for the advancement of Agriculture, and the diffusion of scientific facts and principles connected therewith.

The Special Report emanating from the Agricultural Society of the County of Beauharnois, strengthens the consolatory opinion held by your Committee, that Agriculture, as a science and as a pursuit, is making regular and rapid progress.

Your Committee consider it a duty to remark, that it is desirable that each County should make a special annual return, on the plan of the Report made by the Society of Beauharnois; but they must also remark, that it would be desirable that such documents should be entirely free from sectional prejudices, and sectional feelings.

Your Committee regret the coloring given to certain parts of the Report of the County of Beauharnois, particularly to that part of the Report in which allusion is made to the holidays (*fêtes d'obligation*) observed by Catholics; an allusion the more particularly unreasonable and misplaced, as it is the less probable that the Legislature will, by any act of its body, oblige Catholic farmers to labor on those days which are, by their Church, consecrated to the worship of the Creator.

Your Committee having in view the Report made last year to your Honorable House, and the documents annexed thereto, as well as the Appendix to the pre-

sent Report, will confine its own action to the furnishing of the rough draught of a measure, which your Committee think it their duty to recommend to be adopted by the Legislature, as the best means to be taken at present for the encouragement of Agriculture, in a country which, (we cannot repeat it too often.) nature has especially created for agricultural purposes.

Your Committee recommends, therefore, the appointment of two Superintendents of Agriculture for Lower Canada: one, for the united Districts of Quebec, Three Rivers, and Gaspé; the other, for the united Districts of Montreal and St. Francis; whose duties should be as follows:—

1. To visit their respective Districts once in the year.\*

2. To draw up an Annual Report of such visit within their territorial limits, which Report should comprise, among other matters, a description of the different soils.—the fertilizing matters appropriate to each,—a description of the accidental changes to which the surface of each is subject,—of their natural aspect,—their condition in respect of drainage, clearing and cultivation,—the fertilizing matters which nature has provided in proximity to the hand of the cultivator, and the remedies which are applicable to the prevailing defects of the system.

3. To attend carefully to the proper organization and management of the Exhibitions hereafter mentioned; to audit the accounts of the different Societies of which they will, *ex officio*, be members; and the natural advisers, within the limits of their Districts.

4. To provide that there be one Society for Exhibition of Agricultural Products in each County; and in their Annual Reports, to give a detailed account of the affairs of each of their Societies, within the limits of their respective Districts.

5. To take care that each Common School is furnished with an Elementary Treatise on Agriculture.

6. In the course of their annual visitation, to give public lectures on Agriculture, at least one in each County.

7. As far as may be practicable, to be present at the several Agricultural Exhibitions of the County Societies.

The Superintendents will thus, it is plain, form the executive branch of the system recommended, and will, moreover, form the didactic body; the only one to be hoped for in the present state of affairs. The importance of such Exhibitions, as the Superintendents are to be bound to hold annually, is felt so forcibly in New Brunswick, that the Legislature of that Province, has considered it a duty to procure such an examination of its territory, to be made by the celebrated Professor Johnson, whose Report on that subject has given a new impulse to Agriculture.

It will be easily imagined, moreover, that the presence of the Superintendents, and their advice, will be powerful auxiliaries to those who aim at awakening the people from their apathy, and directing their steps in the road to improvement and reform. The Reports of the Superintendents will be the criterion of the state of Agriculture in the different Counties; and of the relative progress of different localities, in the production of grain and roots, in the rearing of cattle, and in the various other branches of Agricultural industry. These Superintendents will, moreover, be the natural counsellors of the different Societies; and their office will be one of reference, where every person may obtain useful and needful information; as, where to procure an implement perfect of its kind, an animal of an eligible breed, or seeds of a superior quality.

Without dilating on the importance of this preliminary means of forwarding the progress of Agriculture in Lower Canada, your Committee pass on to the second step, which is the organization of Agricultural Exhibitions, of the nature of those which now exist, but with important modifications. Taking into consideration the increase of expense caused by the creation of two offices, and the publication of an Elementary Treatise, as above recommended, your Committee propose to reduce to £1,000, the sum now granted for Agricultural Exhibitions; which sum shall be annually placed at the disposal of the two Superintendents, who shall meet at Quebec, to share that sum among the different Counties, in due proportion to the population and extent of land, owned in each County; the population being taken as five, and the number of acres of land as one. In order to become entitled to a share of this grant, each County must form an Agricultural Society, composed of at least twenty-five members, subscribers of at least five shillings each; such Society shall elect, annually, a Board of seven Directors, of whom one shall be Chairman and another Secretary, which last shall have the management of the business and the funds of the Society. These Societies shall be bound to hold one or two Exhibitions in the year, of produce and animals, according to the present custom in Lower Canada; at which Exhibitions, prizes shall be awarded to the best productions, in such manner as may be ordered by the Board of Directors, of which due notice shall be given in every Parish in the County. The prizes so awarded may be distributed in money, in books on Agriculture, in improved implements of field labor, or in superior kinds of seed. Counties which are of too great extent to derive the proposed advantages from a single Society, may form two, and share between them the sum belonging to the County, conditionally, that each Society shall consist of twenty-five members, at the least, in each division. Competition for the prizes awarded at these Exhibitions, should be open to all the inhabitants of the County, in which the Exhibition is held.

Whenever a Society, or the Board of Directors of a County, or of the Division of a County, may consider the system of Exhibitions ought to be changed for some other, and that the Government grant, and the subscriptions, forming the aggregate fund at their disposal, might be more beneficially employed by being applied to the establishment of Model Farms, or Agricultural Schools, or in any other way or manner whatever, they may appropriate the funds to such purposes as they may deem expedient, provided that notice thereof shall have been previously given to, and consultation thereupon previously had with, the Superintendent of their District.

Whenever it happens that a County Society is able, from the Government grant and its subscriptions, to form a fund amounting to £150 and more, such Society may cause Exhibitions to be held in each Parish, if they appear likely to be beneficial.

Every County Society, or County Division Society, should be bound to transmit to the Legislature every year, a Special Report of its proceedings, and of the state of Agriculture in the County; and to the Superintendent of the District, an account of the Exhibitions, and of the application of the funds.

In recommending that your Honorable House, should confer on the County Societies, the right of regulating and disposing of the funds entrusted to them, and grant them the greatest possible latitude in the choice of the means to be employed for the improvement and prosperity of Agriculture. Your Com-

mittee aim at reconciling the conflicting opinions held by the public, concerning the efficacy of the various methods by which the farmers of Canada may be stimulated and encouraged. Your Committee have reason to believe that in so acting, you will see all the causes of dissatisfaction, now so rife, removed from the different Counties or Agricultural Societies. The obligation imposed on those Societies to consult the Superintendents, will be a useful check upon the ill-effects which might otherwise arise from such a system. Your Committee beg to refer to the Report of the Committee of last year, for the suggestions which it may be thought expedient to offer to the Directors of the several Societies.

Lastly, your Committee suggest to your Honorable House, as a means of diffusing a knowledge of Agricultural matters, that a prize of One Hundred Pounds be offered for the best Elementary Treatise on Agriculture, which shall contain, in one small volume, all the practical precepts of a good system; such prize to be awarded and paid to the person who shall have produced the work which shall be declared the best, by three persons appointed as judges thereof, by the Governor in Council. Those persons meeting at Montreal, in the month of June, one thousand eight hundred and fifty-two, for the purpose of examining the different works offered by competitors, in such manner as may, after the passing of the Act here suggested, be appointed in virtue of a Proclamation of the Governor General, declaring the object of competition, and establishing rules to be observed in submitting the various productions.

The Treatise in question should be translated from the language in which it may be composed, published at the expense of the Province, and distributed to families and School-Corporations, in the proportion of 50 000 copies in French, and 12,000 in English; and such distribution should be made by the Superintendents, in proportion to the population of their Districts respectively, and according to the last general census then proceeding.

Your Committee have no doubt of the efficacy of the means here suggested, and consider that the enactment of a Law, based on them, would be hailed with delight by a vast majority of the inhabitants of Lower Canada. Your Committee do not pause to consider other means of encouraging Agriculture, particularly the adoption of Model Schools of Agriculture; finding, as they do, too great diversity of opinion in the public mind, and being moreover confined within the narrow bounds of the present grant of the Legislature.

On this point, your Committee consider themselves bound to declare to your Honorable House their opinion, that the present grant is insignificant, when considered in reference to the important object in view; and they trust that the Legislature of the Country will feel the necessity of augmenting the grant, both for Upper and Lower Canada.

The whole respectfully submitted.

(Signed,)

J. C. TACHÉ,

Chairman.

D. M. ARMSTRONG,  
T. BOUTILLIER,  
A. J. DUCHESNAY,  
L. S. LACOSTE,  
J. McCONNELL,  
J. S. SANBORN,

August 12, 1851.

As an encouragement to the cultivation of carrots, we beg to refer our readers to the

letter of Austin Adams, Esq., of Montreal. The produce obtained is very large indeed, and at even sixpence the bushel would be equal to £20 the acre. The land having been previously cultivated under Indian corn and broota corn for several years, must necessarily be clean and in good condition; the yield, however, can scarcely be exceeded, if it can be equalled. In farm cultivation, where more than an acre of carrots would be sown, they should be cultivated as a green crop, to clean the land and prepare the soil for grain crop. Indian corn, being a manured and hoed crop, may also be considered as adapted to clean the land and prepare it for a cereal crop, and, therefore, in a good system of Agriculture, we do not think carrots should succeed Indian corn. In Mr. Adams' case, however, near Montreal, he could not have cultivated his land more profitably, particularly where the supply of manure was ample.

Mr. Adams informs us that he had purchased his carrot seed from the seedsman of the Lower Canada Agricultural Society, Mr. George Shepherd, whose advertisement will be found in another page, and who has on hand an excellent assortment of agricultural seeds, garden and flower seeds and plants. Mr. Shepherd, previous to his coming to this country, having been for many years in the employ of the celebrated seedsmen, Lawson & Sons, of Edinburgh, Scotland, and practising as a gardener and seedsman in Canada, also, for several years, he is, perhaps, as well qualified to act in the capacity of seedsman to the Lower Canada Agricultural Society as any man in North America. This Society have appointed Mr. Shepherd their seedsman, in order that the members, as well as purchasers of seeds, should have the benefit of the practical knowledge and advice of a man so well qualified to give any information required as a seedsman and gardener, *and gratuitously.*

To Wm. Evans, Esq., Editor of the *Agricultural Journal, Montreal.*

DEAR SIR,—I beg to state the results of my cultivation of about three and a half acres of

and under carrots last year. I may designate the soil as a sandy loam, that had been cultivated under Indian corn and broom corn for several years previous, and consequently was perfectly clean. The land was heavily manured from the stables last Spring, spread upon the surface and ploughed in. The seed, (the Alt-tingham,) was sown immediately upon the ploughed surface, with a sowing machine, in rows from 15 to 18 inches apart, without forming any drills. The after culture was simply thinning and weeding. The produce of roots, without the tops, was about 800 bushels per acre, and I fed them to ten horses and one cow from the latter end of October last, and there is now sufficient remaining to complete the feeding for six months from the commencement. The horses had only one gallon of oats each, per day, with the carrots, and cut hay, and wheat straw in equal proportion; were constantly at heavy work, and, though they were old, were never in better health or condition at this time of the year. I would observe that I cut my wheat before it is dead ripe, bind and stook it at once, and, when dry, thresh it in the field, and it is the straw of this wheat I cut into chaff for my horses. There is another circumstance I should mention, that where the carrots were not regularly thinned out in the rows, they appeared to produce as heavy a crop as where thinned, numbers making up for deficiency of size. They were stored in a root-house where the temperature was not much over freezing, and kept well. The carrots were piled about two feet wide, and each pile separated simply by studs and boards, but no other interval between the piles.

I remain, dear sir,  
Your obedient servant,  
AUSTIN ADAMS.

Montreal, 12th April, 1852.

We have been favored with a Communication from John R. Lambly, Esq., President of the Agricultural Society for the County of Megantic, in reply to a request from the Directors of the Lower Canada Agricultural Society in the last number of the Agricultural Journal, that the Presidents of the County Agricultural Societies would communicate their views on the various subjects discussed

by the Agricultural Congress on the 10th February last. We give the following extract from Mr. Lambly's excellent letter, and recommend it to attention. We hope that Mr. Lambly's example will be followed by other Presidents of Societies. It is in this way, by the united exertions of all interested in the progress of agricultural improvement in Canada, that they will be able to have measures introduced that will be the best calculated to accomplish this object. All Agricultural Societies have the same object, however they may differ as to the most proper means for attaining it. It is, however, by bringing the different views on this subject before the public for discussion, that the best plan of action in this important affair can be decided upon for the general good. The Lower Canada Agricultural Society have invited County Societies to declare their views through their Presidents, and such Reports can be published in the Agricultural Journal free of any expense to them.

DEAR SIR,—Your favor of the 27th ult. came safe to hand, but from press of business, I have not been able to find time to reply until now, and with its contents I was highly gratified, inasmuch as I felt satisfied that the one great object so essentially needful for Canada, viz. Agricultural Education, was on the eve of claiming that attention of which it is so highly deserving, and for the securing of its blessings to the rising generation, as those who must replace us in the field of operation, it must succeed, and effectuate Lower Canada's Agricultural Regeneration; for I am fully satisfied, that whatever aid of a pecuniary nature agriculture may receive through its organized societies, will only prove at most but a sickly attempt to accomplish what that great desideratum will undoubtedly secure. This obtained, pecuniary aid will then become more than ever a stimulant. For you have found, sir, as well as myself, and observed it all around you, that to improve either the moral or social condition of a community without education will ever prove a vain and futile attempt, and we are compelled to say the same of *agriculturists*. They must read, read, read, sir, or continue to be the same illiterate, degraded drudges of a noble and *ennobling* profession. Men are educated for all other professions but the dignified profession of agriculture; even in the middle of the nineteenth century, men, or the most of men, suppose all that is necessary to practice it is *done and sown*; this, sir, is almost incredible, yet such is the

case. The question how this state of things is to be reminded, and I can assure you, sir, that I rejoice in anticipation, for, if the subject receives that justice which it demands, it must conquer; and with yourself I feel satisfied, that the way to extend its benefits will be by Agricultural Schools and Model Farms. Private instruction, if even possessing all the requisites, would have this objection, that it would be numerically insufficient, but objections to this latter mode could be multiplied. Agricultural Educational Institutions to succeed must be adapted to the state of Lower Canada. These institutions, under present circumstances, and in the present state of Lower Canada, cannot be expected to be constructed to materially benefit the European agriculturist; the great object, as I look at it, is to secure to the Franco Canadian the benefits of these institutions, because they are the most in need of them, and the most numerous portions of the agricultural population, and yet, under judicious management, the former might be materially benefited by them also. But I must leave this part of the subject as I am convinced that it is in better hands, and that you will lay before the farming community, before the opening of the House, an elucidation of the subject, and set thinking and public men to work to aid you in this great work.

However, sir, in the meantime, (for it may be some time yet ere that is accomplished) I think that our Agricultural Societies might adopt primeval measures, and at once commence the business; for instance, I have long urged the step on our Society, it is this that all our third or last premiums should be a volume of some agricultural publication (the Journal for instance) so as to induce the farmer to read, and, as a further inducement, to keep a regular record of all farm operations as a reference for future guidance and directions, and also for the purpose of ascertaining the most profitable mode of cultivating their lands, and, moreover, eventually leading to a systematic and scientific agriculture. "That every competitor for this Society's premiums should produce, previous to being allowed to compete either for grain or for farm produce, a written statement of the manner the land was prepared for such grain crop, from the first ploughing to the harvesting, also a detailed amount of the making of butter and cheese and sugar, the same of all domestic manufactures. These records to be the property of each Society requiring them, so that, when revised and printed, they would contain a series of Agricultural Statistics, at once interesting and useful. Another subject, sir, which often engrossed my attention, is that of the manufacture of maple sugar. From a rough calculation made some time ago by myself, this county expends annually the enormous sum of between eight and ten thousand dollars for sugar alone, all to be paid for in cash at Quebec; now, sir, this

bespeaks a bad state of things; our county is covered with the finest sugar maple forest in Canada: there is not, I believe, scarcely a lot or half lot without its sugarc, and yet, this enormous sum goes yearly to Quebec for sugar, when, by a little judicious management, and a small outlay of labor, that sum could be saved to the county, and at the same time, as much manufactured as would secure the same amount in the pockets of the farmers. Thus, in this article alone, this country is expending eight or ten thousand dollars yearly, and annually losing as much more, so much, sir, for good farming!!! Can it be possible that men are so blind to their own interests? Canadians as well as others emigrate to foreign and insalubrious climes to *slave for gold*, when it can be obtained at home in Canada with comparative ease, comfort, and health, without sacrificing its enjoyments or its blessings!!

Mr. Lambly has also sent us a report sometime ago of an Exhibition held by the Megantic County Agricultural Society, from which we give the following extract:—

"I would also observe that this Society held its winter show in this county on the 10th. It was numerously attended, and evinced a decided improvement—in fact every year testifies that this country is making rapid improvement in its agriculture. The grains were of a very superior sample, and fit to be exhibited with any part of Canada, and the vegetables were a very splendid display, and I can assure you, sir, that the sight of so many superior samples of turnips would have convinced an agriculturist that this country is destined, not very far hence, to feed largely, both beef and mutton of a superior description for market, and this is a fact worthy of note, as to our future prosperity, that our farmers are now waking up to the great advantages of the turnip culture, and I could name you many of our agriculturists who raise even now yearly from 400 to 3000 bushels.

I have enclosed a list of the weight of the wheats exhibited at our last show, by which you will see that Megantic can raise wheat of weight as well as Upper Canada; the prize samples weighed severally as follows: the half bushel 32lbs. 15ozs., 32lbs. 12ozs., 32lbs. 11ozs., 32lbs. 10ozs., 32lbs. 9ozs. This was bald wheat; the Black Sea wheat weighed as follows 32lbs. 8ozs., 32lbs. 3ozs., 32lbs., 1oz., 31lbs. 14ozs., and 32lbs.

Pease weighed as follows: 32lbs. 13ozs., 32lbs. 11ozs., 32lbs. 9ozs., and 32lbs. 8oz., and the rye and barleys were equally good.

So, you will observe, sir, that our samples of grain were not despicable, and that by steady perseverance we shall be able soon to compete with other countries up or down.

Wishing you, dear sir, very sincerely, the utmost bound of your expectations in the work you are engaged in,

I remain, with  
 sincere respect,  
 your obedient servant,  
 JOHN LAMBLY,  
 P. M. A. S.

To Wm. Evans, Esq.,  
 Secretary and Treasurer  
 of the L. C. A. S., Montreal.

*To the Editor of the Agricultural Journal.*

SIR,—In common with many, I have regretted the inefficiency of management in the disposal of some of the legislative grants for the advancement of agriculture in Lower Canada; and I was agreeably surprised, when, for the first time, I read in a paragraph in the *Editorial Review of Montreal Witness* of February 2nd ult., the announcement of remedial measures for the deplored inefficiency. With the views of the paragraph above referred to, I entirely concur, and now quote, "This addition to the duties of the ministry, we regard with considerable interest, being satisfied that it may be so worked as greatly to benefit the country."

Now, as Mr. Cameron will naturally be led to enquire into the efficient disposal of all government aid to agriculture, from all sources within his reach, and also any one interested in agricultural matters will naturally enough be induced to communicate to him their opinions and suggestions, it appears to me that the *Agricultural Journal* is, perhaps, the best vehicle available for such communication, inasmuch as each and all may express, through it, to him their opinions and suggestions, as in a general way, but which he can select and work out for the greatest possible good. In this view, notwithstanding an aversion to appear in public print, a sense of duty to the interest I feel in agricultural matters constrains me to submit a few remarks on the crude notions and ultra views published in the *Journal* from time to time on ploughing and ploughing matches. Being a regular reader, I have observed with interest what opinions have been elicited under the signatures of ploughmen and others on the subject, nor, from a letter in the February number of 1852, does the contrariety of opinions on the subject of ploughing and ploughmaking appear likely to be soon settled in the columns of the

*Agricultural Journal*. There are men who have, in the old country, studied the construction of ploughs, and the fittest manner of ploughing, from all the means available of scientific knowledge, combined with practical experience and extensive observation, so as to have laid the subject on the shelf as exhausted, as a fixed principle and as unalterable as any of the propositions of Euclid. But these isolated persons, capable of knowing and judging in the matter scientifically and practically, have been moving in too low a sphere in the agricultural community to make their observations of any avail to those well-wishing individuals, who write more from theory than practical experience on the subject. In the field, ploughmen are borne down and nonplussed by officials, whose authority in influencing decisions is tantamount to the deference due to common sense and experience. The ploughman may be sound in his views, though he may be wholly incapable of expressing himself so as to keep his ground against a lawyer's reasoning, cross-questioning, and ridicule. Let us review some of the unintelligent eruditions of the *Journal* of February ult., on the subject in question. From the degree of talk on the point of making competitors adhere to the *speed exacted*, there appears to me an inconsistency of principle, which, if carried to the extent that may be inferred from the importance they attach to *speed*, would ultimately defeat the purpose that these matches are designed to effect, namely, chiefly improvement in the *art of ploughing*, and, indirectly, agriculture generally. It is of some importance to notice that the *cry for speed* be kept subordinate to *fitness*, at the same time, "what is well done is soon done," and also "the more hurry the *less speed*, like the tailor with the long thread." Certainly there is a speed to be exacted fitting the *occasion*. But in the light of the object to be attained—"the general good, and the improvement and encouragement of agriculture," I hold that more time than is necessary at every day work at home should be allowed. There are such proprieties as special things for special purposes, and preparations to ensure general effects. If the ploughing done at matches were, from exactions inconsistent and incompatible with their object, no better done than in every-day work at home, they would have little effect indeed in improving either the art of ploughing or agriculture in general. The chief object of matches is



to exhibit the best specimens of ploughmanship, and how, but by labor and study, of observation and practice, are these specimens produced? And how, but by superior specimens, could the art of suitable ploughing be advanced? The excellence and superiority of any thing implies *preparation* and *time*. And since real excellence cannot be attained without exertion and *enough* of time, therefore, let what will be said of those who do take a long time to their work, they will, if best, not only be awarded the prizes, but must, in the light of the object of such gatherings, be considered the most useful ploughman also. IN THIS VIEW, I hold that the ploughman who produces the most perfect specimen, without regard to the time he may have taken at all, has done more to the progress of the object professedly desired, than a host of others below mediocrity, and more entitled to commendation by far, than he whom some would entitle to the premium from the grounds of usefulness upon his employer's farm. You may rest assured that the man who has acquired the skill to excel his fellows in *excellence*, can also descend to any degree of inferiority to satisfy his master; as to usefulness and the difference of the two is, that while the one from his study and skill can rectify impediments to the case of himself and horses, the other is floundering away in darkness and annoyance that he cannot repair.

*Speed* and *perfection* in *lea* ploughing are comparatively a contradiction in terms, and there is a degree of speed also which entails on it the very reverse of speed, as "they that go fast cannot go long." A certain measured pace combines the greatest speed that strength can maintain. I have now, I think, said nearly enough to show that there is a degree of *proportion* and *time* needed for match ploughing to attain the perfection desired, which the allowance of every day work cannot meet, "just as in the business of debate the heavy artillery of *prepared* speeches often do greater execution than the fire-arms' skirmishings of extemporaneous warfare." In one communication it is impossible to do justice to your space and the subject, but I will notice a few of the *objections* and suggestions on the subject in your next number. In the matter of ploughing, the question has nothing to do with the *manner* it is done in, nor the *power* required to accomplish it. The question is, we want *good* ploughing, and *how* can it be attained?

There are in the ploughing of grass land essential things which require certain means to obtain them, and as it is certainly foolishness to increase the laboriousness from draught beyond what is absolutely indispensable to that kind of ploughing for good husbandry, it is also as foolish to sacrifice utility against the objection of a few stones of draught for the horses. My choice at least is, *the most essential kind of good ploughing*, regardless of all draught. Let the plough be a proper one, and a good ploughman will inevitably bring it to work on the least draught possible.

The *setting* of the irons, especially the rising of the feather of the sock, increases the draught certainly, but the increase of draught from this cause does not necessarily make the ploughing very laborious. This may appear strange without an explanation, which explanation will show that, if everything is correct, *this* increase of draught makes the ploughing *less* laborious for the horses. A plough with a flat sock may be as heavy in weight as one with a raised sock, from other and different causes, and we may be deceived by asophism, which makes us take that for a cause which is only concomitant. The relative draughts of three different styles of ploughing will be seen by these indications from the dynamometer. A flat obtuse cut furrow, from 45° downwards, shows in a furrow of 8 inches by 6 inches a weight of 18 stones; a square cut furrow, 8½ inches by 5½ inches, at 45°, 22 stones weight; an acute high-set cutting trim, all *above* 45°, of 7 inches by 5½, 24 stones. From these comparative statements of draught, it is plain that the draught is greatly increased, but without such increases of draught it is impossible to plough *lea* land to perfection. But I have said that it can be explained why this increase draught is not laborious, and the constant pressure gained by the means which increases the draught, and by which the perfection of the work is attained, provides the horses with steady resistance that is perfectly wanting in the obtuse kind of ploughing, and which is the cause of horses *going worse* in the plough of light draught than in one of the highest trim and the heavier draught. It is invariably the case that the worst plough is comparatively lighter in draught than that of the best working plough on the same ground, and the horses tell by their going forward with a steady measured pace that they like it better, whereas change the trim of

plough so that it takes not a hold of the furrow, which will reduce the draught a fifth. The horses will immediately shew their resentment by unequal movement forward. According to the nature of the land, the objections of each ploughing shallow or deep, as he lists, might be the very best rules to ensure "model ploughing," and, therefore, according to circumstances, a scale to plough by, and scrupulous attention to it, to entitle to prizes, might be rules to ensure the worst of ploughing, the very contrary of what model ploughing, in the best sense of the term, ought to be. Take the case of the land at the last provincial match at Varennes last fall. If there had been dimensions of furrow given, and the execution of them insisted on, as alone entitling to prizes, the ridges would have had anything but a model appearance, and would have, from their concavity of surface, been in the worst possible form for harrowing, and the best possible for holding water in the crown or middle of the ridge. The greater portion of the land was in a form, being high crowned ridges, the most unsuitable for *crown* and *furrow* ploughing, and was better adapted for what is called *paired land*. Take the first and second prize lots ploughed by Thomas Hodge and Matthew Hutchison. Perhaps the cause of the *second* prize not being *first* was from the fact of his *crown furrows being of a size with the whole of his ridges*; or, in other words, if he had strength of horses (for M. H. knew well the impropriety of a hollow crown) to have enabled him, as his neighbour rival, T. H., had, to raise, by size of furrow, the crown to a suitable height for the proper curvature of the ridge, which would just exactly be contrary to the rules of a given scale, their places might have been changed in the list of premiums, while the ploughing would have had more of a model character, and just because of *not paying the attention exacted to scales of dimensions*. The superiority of ploughing cannot be shackled to one point, however excellent that point may be; it must be judged as a *whole*, under a combination of points, which are included in the term *fitness*.

It is only from this being a stormy day that I have got the chance to hurriedly pen these very imperfectly expressed remarks, at the eleventh hour of the end of this month. I can only at present say respecting wheel ploughs, that to *invite* them into competition with the iron swing plough, which experience has found out to be

the most *fit* by far of all others in use, is the revival of absolute things, and as ridiculous as the revival of *things that were* to the substitution of all that makes the contrast of the lot of the ancient nobleman with the modern laborer, in the discoveries of mind over matter, the annihilation of distance by electricity and steam, gas light and lucifer matches, penny stamps and ocean postage, and such likes, that characterise this utilitarian age.

If these remarks should in any degree propel the cause they aim at, some other day's storm, or a day's rain, may provide the opportunity of a renewal of points introduced, or that may be elicited on the subject.

J. SYMINGTON.

Pointe aux Trembles,  
March 31, 1852.

*To the Editor of the Agricultural Journal.*

SIR,—If you find the following brief remarks on green cropping suitable to give a place in your valuable Journal, being always willing to promote the cause of agriculture, they are at your disposal.

The great necessity of Agricultural Societies devoting more attention to fallow or green crops, to give greater abundance of winter keep, cattle generally being so badly kept in this Province throughout the winter, which is a great drawback for growth, milk, beef, or work. I may say that green crops are the first step to good agriculture, it cleans the land, gives manure, and rightly said, the more cattle the more corn; if each farmer would try less or more, they would speedily feel the benefit therefrom, and instead of Agricultural Societies giving the prizes for the largest mangels, turnips, &c., appoint the judges to go to the farms of the intending competitors, and to judge the crops in the field, and see how the land is cleaned and pulverized for the succeeding crop, it being quite easy to raise a few large roots to take to the show, which does not show what the crops are in the country, and are no way adapted for the advancement of agriculture. Farms of large size for the first prize should have so many acres of green crops, and so on for smaller ones in proportion, which would be the best means of stirring up all parties to increased exertion. Secondly, with regard to the sowing of the seeds, they should always try and get the best kinds, and all the seeds should be steeped less or more, as it quick-

ens the braird; the sooner the plant comes to the thinning point the better; the seeds or kind should, if possible, be always those with the most nutritive matter for feeding properties. A great many farmers sow, for instance, white turnips, which are not worth the labor; to prove this, the following table will suffice. Analysis by Sir Humphrey Davy:—

	Muirage or Starch.	Saccharine Matter.	Gluten Albumen.	Extractive Matter.	Total Nutritive Matter.
White Turnips,	7	34	2	2	42
Swedish do.,	9	51	2	2	64
Common Man- gel Wurzel, . .	13	119	4	0	136
				less than	
Orange Globe Turnips, . . . .	25½	106½	1	1	134½
Sugar Beet, do.,	17½	126½	1½	1	146½

I would recommend all green crops to be dibbled or sown in bunches, rather than along the whole drill; the advantages are the following:—you can sow them at the exact distance you wish to leave your crop; the seeds being all together, they braird quicker, also come quicker into the state for thinning, than when sown thinly on the top of the drill, also the plants have more room to spread to all sides, they are not so easily destroyed by the fly, &c., as when thinly sown, they can be left to a greater size, and, when thinned out, their growth is not checked in the least; one plant left at each place, they are also easier thinned and otherwise cleaned, coming sooner to be thinned, the weeds are sooner checked and kept down. I have succeeded well, both in this country and Great Britain, under the above system. I have grown about seventy acres per annum, all dibbled or a rut along the top of the drill, and the sower sowing only at intervals, then rolling; the young population or the farmer's children can easily be taught to thin and clean the green crop, while the others are engaged in heavier work. I think that without a more extensive cultivation of green crops it is quite wrong for Agricultural Societies to encourage the improvement of cattle, unless where abundance of keep for the winter; and were Societies to assist and encourage the farmers of Lower Canada in the cultivation of said crops, as a matter of course we should soon progress in the improvement of cattle. If you wish, I can give you a pattern of a turnip-sowing machine, which is well adapted for all classes, and is got for a mere trifle, and

any one may sow with it. I got it made here by a tinsmith for 7½d. I have encroached too much, and I am,

Your obedient servant,  
J. DRYSDALE.

We willingly give insertion to the above letter of Mr. Drysdale, and shall be glad to hear from him again. We shall also be much obliged to him for a pattern of his turnip-sowing machine. We approve highly of his method of dropping the seed at intervals, and have adopted that plan for some time past. Mr. Drysdale has placed in our hands several testimonials of character and ability as an agriculturist, and we had an opportunity of seeing the farm he had the management of last fall, and the drill crops did him great credit. If any gentleman should require the services of a practical agriculturist, Mr. Drysdale would, we are convinced, give satisfaction. He has stated to us that he shall be disengaged the 1st of May next, and the testimonials placed in our hands can be seen by any party wishing to engage him.

*To the Editor of the Agricultural Journal.*

Sir,—I take the liberty of enquiring through the columns of your highly useful and valuable Journal, what breeds of neat cattle are best adapted for the dairy husbandry of Lower Canada. By answering the above at an early date you will much oblige

Your most obedient servant,  
A YOUNG FARMER.

St. Foy Road, Quebec, 15th April, 1852.

In reply to "a young farmer" as to the best breed of neat cattle for dairy husbandry in Canada, we must say there is a great difference of opinion. As regards our own experience, we would prefer cows produced from a cross of the Ayrshire or Devon bull, and a good description of Canadian cows to any other breeds. With a short horned bull of moderate size, a cross might also be tried with the Canadian cow. An old country farmer will not be persuaded that a useful herd of dairy cows might be selected from Canadian cattle, but it is nevertheless true that

they could. Canadian neat cattle have not a fair chance. From the time of their birth they are not kept in such a manner as to develop fully their good qualities. They are always mismanaged, no selections made for breeding, and, in fact, there is no care taken to prevent them from degenerating and becoming worthless. If a farmer happens to have a heifer that has scarcely one good point for a dairy cow, and breeds from her nevertheless, how can he expect to have a useful stock, and this is the constant practice. We feel persuaded that, if a farmer wished for a profitable herd of dairy cows, he could not do better than endeavour to select the best young Canadian cows he could find, and not to be deterred from having the best for three or four dollars in the price of each, then to procure a good description of Ayrshire, Devon, or moderate-sized short horned bull, and, from such a commencement a useful dairy stock might soon be obtained for an ordinary farmer. We do not, however, see any objection to agriculturists who might be desirous of having a more showy stock, selecting them from larger and favorite breeds. No doubt such breeds may be profitably kept where they can be carefully attended to, but we should not be acting candidly with our Correspondent if we did not tell him the sort of dairy stock we would think preferable for a young farmer. It has been generally admitted, that it is more prudent and profitable to endeavour to improve a native stock of neat cattle by selection and crossing, than to introduce a new breed altogether. We do pretend to know some of the good points of dairy cows, and we take upon us to say, that a Canadian cow, of good quality, has many of these good points. These cows may be of a small size, but by selection, good keep, and a judicious cross with a bull not over large in the commencement, this size might be increased to almost any point desired; but it should be done gradually, or the form of the animal will be imperfect. When attempts have been made to improve the Canadian neat cattle, the most proper means have not been adopted for accomplishing that object. There has not been

any attention given to select the best Canadian cows, or cross with a moderate-sized bull, and a great disparity in the size of animals will seldom produce perfection or excellence of form in the progeny. We hope these few remarks will be kindly received by "a young farmer," and by other agriculturists who may be of a different opinion in regard to dairy stock. We submit our convictions, and we know that they agree with the experience of some other practical farmers of our acquaintance.

*To the Editor of the Agricultural Journal.*

DEAR SIR,—Perhaps you will be kind enough to insert in an early number of your excellent Journal, your opinion regarding the breed of white cattle, and if the color only is any fault in the animal, provided the other points are good.

Yours,

AN ADMIRER OF WHITE CATTLE.

St. Foy's, District of Quebec, 17th April, 1852.

In reply to "An admirer of white cattle," we beg to state, that, although we have had a white cow occasionally that was easy kept and gave a large quantity of milk, we would not give the preference to cattle of that color generally. The white cows we had were not pure Durham, or short horned, but had a cross of that breed, and were of a moderate size. The most esteemed color in England, for bulls of the short horned breed, is roan, and whatever the breed or cross, we should prefer roan, or red, with a few white spots, to either white or black, or a mixture of these latter colors. We may be prejudiced as regards color, because the best cattle we have ever seen were not of pure white or black color. No doubt we shall occasionally meet with fine animals of every color, and, therefore, we would not take upon us to say that the color being white would be any fault in the animal, provided the other points were good, though we should have a strong objection to a white bull, or one that had much white, as they are apt to get a large proportion of white calves. Color is one of the points that is considered to constitute perfection in neat cattle, and that

color should not be white. We would have no objection to a good white cow among others, but we should not fancy a herd of that color, however good.

*To the Editor of the Agricultural Journal.*

SIR,—Considering the rearing of sheep of great importance to this country, and being convinced that the system, usually in practice, may be very much improved, and to the great advantage of the Farmers, I shall not allude to the race most approved.

It is universally admitted that the climate of Lower Canada is not unfavorable to the raising of sheep.

I think they should not be permitted to go with cattle or horses, but should be provided with separate dry pasture in summer. They will do best without water except the dew and rain, will fatten best in that way, and will enrich their pasture by their manure. For the winter, they should have a separate enclosure with a high board fence and a shed to shelter them from the storms, open to the south-west, with a perpendicular rick and manger, that the hay seed and leaves should not mix with their wool. Let them be regularly and liberally fed with good, fine, sweet hay, occasionally a little roots, oats, &c. ; oil-cake meal is very good, especially to increase the milk of the ewes. Take special care to keep an exact account of the date when the ram is put to the Ewes; put him not to all in one day, so that you will know the time the ewes will lamb; provide a warm, well-littered room, into which the ewes must be put a few days before they lamb; they should be well fed, give them a portion of oil-cake meal for food ten days before they will lamb. Let the lambs come early in March, when, with this care and food, the ewes will have plenty of milk, and the lambs will be strong and healthy; they will get so good a start when the pasturage comes on and have the whole summer before them, they will be large in the fall and so well able to endure the following winter, that they will be better than the year old sheep, and, by fattening and selling the poorest and weakest of the breeders, the whole race will be greatly improved and the profit of the farmer increased. The expense of rearing sheep in this manner is very little more than the usual one; the principal difference is the care and providing separate accommodation.

By adopting the above method, the profit will

be increased four-fold above what it is by the present system of keeping sheep.

By the present general management of sheep, the farmer's pecuniary interest will remain stationary, but, by the plan proposed, in a few years he will find his soil more productive, his sheep much more valuable, and his finances in a better state.

THE FARMERS' FRIEND.

Montreal, 20th April, 1852.

We request attention to the above letter. We know several farmers who have good sheep, and manage them exceedingly well, though we regret to say, the vast majority act differently.

WM. EVANS, Esq., *Secretary of the Lower Canada Agricultural Society.*

DEAR SIR,—Your favor of March 31st was duly read, and noticed with much pleasure, and would have been replied to immediately, but for a severe attack of lung fever, from which I am just recovering, and am only able to write with a tremulous hand.

You will please tender to your Board of Directors my very grateful acknowledgments for the honor they have been pleased to confer in electing me an Honorary Member of your Agricultural Society.

You say it is the wish of your Board to cultivate intimate relations with the New York Society. In reply, I beg to inform you and them that the feeling is heartily reciprocal with our Executive Board, as well as all our principal Agriculturists in the State. It is only by interchange of views on the various Agricultural interests, that we can hope to perfect a systematic and scientific course of profitable Agriculture.

Your transactions accompanying your letter have been read with much satisfaction, and I am highly pleased with your views of District School and Model Farm. I regard such institutions of incalculable interest and importance to the great Agricultural interest of our country. We have been long struggling for a similar state institution, which has been recommended by a commission appointed by the Governor, of which I have the honor of being a member. I am in hopes of getting a Law passed this Session of our Legislature, making a suitable appropriation for the same. We are also about organizing a national Agricultural Society, and of which I shall hope for great benefit to arise.

At some future period when my health will permit, I will give you my views more fully upon various subjects connected with Agricultural interests, and shall be most happy to continue an interchange of views and sentiments with you. For the present permit me to subscribe myself with sentiments of respect,

your obedient servant,  
H. WAGER.

Westernville, 12th April, 1852.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

**DAIRY MANAGEMENT AND MILK PANS.**—Captain Stanly Carr in the year 1839 favored the Society with a series of valuable and interesting observations, on the Rural Economy of North Germany, and especially on that of the Duchies of Schleswig, Holstein, and Lauenburg, in the latter of which his own estate lay. These observations, founded on his own extended personal experience, were printed in the first volume of the Society's Journal (pp. 124—131 and 371—387), the first series of them being honored by the award of the Gold Medal of the Society. In those communications, Captain Carr makes the following remarks on the milk-cellars, dairy-maids, and milk-pans, which we select on this occasion, as having immediate reference to the statement made by Captain Carr to the Council at this Meeting, and to the discussion by which that statement was followed:

*Milk Cellars.*

The size and site of the milk cellar are esteemed by the Holsteiner as matters of first-rate importance: it ought to front the north; be shaded from the southern sun by rows of trees—elder being especially selected for this purpose, and, indeed, placed if possible near the windows, on account of their influence in keeping off the insect tribes; and a thatched projecting roof is preferred, affording greater protection from the heat: while, in choosing the site, peculiar care is taken to place the dairy beyond the reach of every thing calculated to generate bad odours, or in any way taint the atmosphere. The size of the milk cellar must necessarily be regulated by the number of cows, but it should always be calculated to contain the produce of four milkings; and as the milk dishes usually occupy a space of two feet square, the produce of 100 cows, giving on an average 8 quarts per day (a large average for the cows of this country throughout the year), would fill 50 milk dishes at each milking, and would require a ground surface of 500 square feet, as the milk dishes are invariably placed on the floor, the amount of each milking a little apart; and there must unavoidably be spaces left, to enable the dairymaids to go through their various operations of skimming, sieving, and removing cream, &c. The floor, though sometimes flagged, is more generally of brick, neatly fitted, so that no water may lodge in the joints; and always gently inclined, with a grated opening at the lower end, to facilitate the mopping and washing of the floor, which is never omitted to be done twice a day, notwithstanding that every avoidable impurity is carefully guarded against, and every drop which may fall at the time of the milk being strained, is instantly wiped up. A great improvement has been recently made in some newly-arranged dairies, by dividing the floor into compartments with brick ledges, from three to four inches high, between which the

milk dishes stand; and the compartments (the lower extremity of which is fitted with a small sluice) being filled, by means of a pump, with cold water twice a day, the milk is preserved so cool as to prevent all approach to acidity for several hours longer than when placed on a dry floor; thus affording, even during the summer solstice, sufficient time for a complete separation of the milk and cream, without which the full proportion of butter cannot be obtained. For effectuating the same desirable result, ice is frequently resorted to in sultry weather, either by dropping a piece of pure ice in each milk pan, or by placing a pailful in the dairy; which by giving off its cold sensibly lowers the atmospheric temperature. It is considered necessary that the milk cellar should be sunk from three to four feet in the ground; be from 16 to 18 feet high (the best have an arched roof, as being more conducive to coolness than boards); and be furnished with two rows of windows (and, if possible, on three sides, north, east, and west), to secure a thorough air. The lower range consists of wooden trellis-work, provided inside with gauze frames to exclude insects, and outside with hanging shutters, which can be lowered and elevated at pleasure. The upper range is furnished with glass sashes when light only is requisite, which are exchanged for gauze frames, when more coolness is desirable.

*Dairy Maids.*

The dairy-maids, besides milking, cleaning the vessels, &c., work in the garden in summer, spin in winter, and wash, bake, brew, and cook for their own establishment, under the superintendence of the upper dairy woman, who is by far the most important personage in it, as on her skill, attention, and diligence depend, in great measure, both the quantity and quality, and, by consequence, the profit of the produce. She must not only thoroughly understand, but accurately observe, the moment when the milk should be creamed; the degree of acidity it must attain in the cream-barrels; its temperature, whether requiring the addition of warm or cold water to the churn, as well as the all-important operations of kneading, beating, salting, and packing the butter. She must not only be punctiliously clean herself in person and work, but keep a strict eye over the cleanliness and order of her subordinate maidens. In very large dairies the upper woman has full employment without milking, and needs the assistance always of one, and sometimes of two, of the more experienced dairy-maids, in butter and cheese making: but in smaller establishments she milks a certain number, generally 10 cows, while each of her subordinates have 18; her wages are usually 55 to 60, that of her chief assistants 22, and that of the others 18 dollars per annum.—During summer the dairy people must rise at three, and even two in the morning, if the weather be very hot; for which they are indemnified by two hours' sleep from one to three in the afternoon. At four they commence milking, which takes place in the field, and generally occupies two hours. At the beginning of the season each girl marks her own cows, by tying a particular colored ribbon round their tails; and in some places they adopt the precaution of the milkers carrying a string, on which they cast a knot as each cow is successively milked, thus securing against one being forgotten. As the fields are large, and often at a great distance, the transport of the milk is facilitated by the very simple contrivance of a long, low, four-wheeled, one-horse waggon, in the side bars of which strong iron hooks are inserted, at such distances that the milk-pails, containing from 30 to 40 quarts each, may swing free of each other; and these,

though fixed nearly to the brim, are prevented spilling, notwithstanding many a rude jolt over the rough and often deeply rutted road, by merely having thin pieces of wood, about the size of a dinner-plate, floating on the surface; a practice, indeed, universal in those countries, when pails with any liquid are carried even in the hand.

#### *Milk Pans.*

The milk when brought to the dairy is immediately strained through a hair-sieve into the vessels, whether of wood, earthenware, copper tinned, zinc, cast-iron (lined with a china-like composition), or glass placed in rows on the floor. All these different kinds of utensils have been tried with various success, in the hope of discovering how, in hot weather, more especially when a thunder-storm is gathering, the milk can be guarded against a too early acidity; for, as it is a fixed and invariable rule that the cream must be removed from the milk before the latter sets at all sour, and an equally established fact that all the oily particles cannot be obtained in a shorter period than 36 hours, vessels in which, during sultry and especially damp weather, the milk could be kept the due time, are a great desideratum. As yet, however, there reigns much diversity of opinion on the subject; and shallow wooden vessels, as nearly as possible equally wide at top and bottom, containing when full about eight quarts, but in which during summer seldom more than six quarts are poured, are in most general use. They have, however, some disadvantages, of which the chief is the great difficulty and the consequent labor and close attention requisite to remove all acidity (which in some states of the atmosphere is almost unavoidable), and which, penetrating the pores of the wood, sometimes resists all the patient scrubbing—first with hot water and small birch scrubbers, and secondly with boiling water and a hard round brush made of pigs' bristles (with which every hair's-breadth is carefully polished over), so that the despairing dairymaid is compelled to resort to washing in a ley of wood ashes, or boiling, or even scorching over lighted chips, followed by countless rinsings in pure spring water. To diminish in some measure this labor, the plan of painting the milking pails and dishes with a preparation of cinnabar, linseed oil, and litharge, has been adopted by the milk-venders in towns, and in some country dairies. Not only, however, is the expense considerable, as the vessels must be finished off with peculiar care, and require to get three coats of the composition at first, and one yearly afterwards, but the milk for some days after they are brought into use has a perceptible taste of paint. The tinned copper milk-pans are very costly, and must be carefully watched, lest they should require re-tinning. The zinc are as yet little known, and the assertion of their effect in better severing the cream from the milk not sufficiently proved. The cast iron, lined with enamel, though assuredly durable and very clean, seem too expensive; and the glass have many opponents on account of their brittleness, and the vague notions respecting glass and electricity inducing the idea that if the electric fluid get into the milk, it cannot get out again! Whereas, as it is ascertained that it always attaches itself to a conductor, and, in the absence of anything more attractive, runs along the surface, it is more likely that the milk should be protected in glass, which is a non-conductor, than in any other substance. In my dairy, which contains upwards of 180 cows, the glass vessels have been used for four years; and I give them a decided preference over all others. Their form is good, being 16 inches broad at the top and 12 at the bottom:

the glass is dark bottle-green, transparent, and perfectly smooth, about one-eighth of an inch thick, and provided with a rounded rim at the upper edge, which makes it easy to retain a safe hold of them even when full. They contain eight quarts, but never receive more than six. They cost 8d. a-piece; and their durability may be estimated by the fact that, to encourage carefulness, each dairymaid is allowed one dollar per annum extra, as *pan money*, being bound at the same time to pay 10d. for each one she breaks; yet hitherto no girl has broken to the extent of her dollar. It is self-evident that acidity cannot be communicated to glass; and the ease and rapidity with which they are cleaned, requiring merely to be first washed with lukewarm water, then rinsed in cold water and placed in a rack to dry, effect such a saving in fuel and labor (diminishing the number of our dairymaids by at least two), that the less quantity of butter obtained, supposing (which I by no means concede) that the milk, during a few weeks in summer, does sour sooner, and consequently throws up less cream in glass than in wood, is more than compensated by the lessened expense of the establishment; not to mention the great advantage of attaining the indispensable cleanliness and purity of the vessels with more certainty, because at a less expenditure of time and trouble. Although it is an ascertained and undeniable fact that the quality of butter depends much on the nature of the pasture, the locality of the dairy, the universally prevailing cleanliness of the whole management, and very essentially on the purity of the water employed, still I ascribe much of the reputation which our butter has of late years enjoyed (and which is verified by our obtaining at all seasons one penny per pound above the market price in our neighbourhood) to the beneficial introduction of glass milk-dishes.

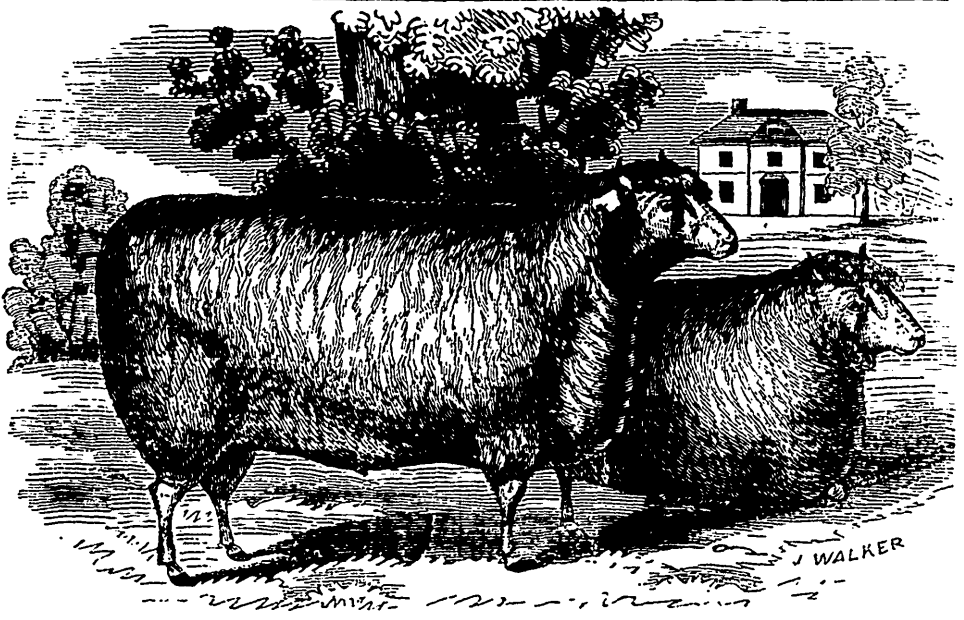
Captain Stanly Carr commenced his statement to the Council, by expressing his regret at finding, that although the glass milk-pans (similar to those referred to in his communications to the *Journal*, and which had been sent by him to the Society from Germany some years ago, at the suggestion of Sir John William Lubbock) could be obtained on the continent at 8d. each, they had not been made in England in the first instance at less than ten times that price, nor, even after the duty on glass had been removed, could be obtained by the English farmer at less than seven times the charge made for them by the original foreign manufacturers to the native cultivators of the soil in Germany. It was true, that in the first instance only the finest flint-glass was used in England for the purpose; while, afterwards, light green bottle-glass had been employed; and he believed that superior quality in the glass was the plea urged by the manufacturers as a justification for the enormous disproportion between the English and the German charges for these respective milk-pans. But without waiting to enquire whether the difference in the glass would make the difference in the prices demanded, he would say that the dark-green bottle-glass of Germany was quite sufficient for the purpose required, having a vitreous hardness and strength quite equal to the softer flint glass, into the composition of which a larger proportion of lead entered. The object to be attained was to get the manufacturers of England to make for the English farmer as cheap and good an article as the poorer, but no less patriotic, manufacturers in the pine-forests of Germany were so ready and reasonable as to make for the farmers of that country. The glass-pans, too, made in England, were cast in a different shape from the German ones Capt. Carr had sent over;

he regretted this also, as the dimensions adopted in Germany were the result of much trial and combined experience, and would be found to be those best suited for dairy purposes. The German pans were of a regular shape and of uniform thickness; the English ones were of the same depth and capacity, but narrower at the bottom, wider and shallower over the sides, and irregular in the thickness of the glass in different parts; these circumstances in the English pans considerably affecting their strength, convenience, manipulation, and economical arrangement in the space of the dairy, as well as the equable rising of the cream from the body of the milk, and its clear detachment from the shallow sides of the pan. He had considered that this country stood the first and foremost; not only in its public spirit, but in the unrivalled skill of its manufacturers; and that he had only to send over from Germany a few specimens of the glass dairy pans, found there to be so economical and effective, to have them at once manufactured in England at an equal if not a lower rate for the use of the English purchaser. He did not, he must confess, expect disappointment in this object, in which he felt a warm desire to testify his regard to the agriculture of his native country; much less to be told, as he had been, that the English manufacturers did not think it worth their attention to make a cheap article of commoner but sufficiently good glass, while they could be justified in demanding seven times the price for a similar article in glass of a nominally higher value, though for the purpose in question not of superior quality. Captain Carr then stated to the Council the origin of his adoption of the glass milk pans. He paid a visit, about the year 1835, to a dairy situate on the borders of Mecklenburgh-Strelitz and Pomerania, and was particularly struck with the sweetness of the dairy in that bad butter-making district, so near the low sandy swamps of the Oder and the Baltic. On examination and inquiry, he found that the most scrupulous cleanliness reigned in every department of the dairy, and he there saw for the first time the milk placed in glass pans. The dairy-woman informed him that they were made at a cheap rate at the glass-houses in the pine-forests of the district, and that while wooden vessels had to be boiled to thoroughly cleanse them and remove acidulated matter from every crevice, these glass pans were at once rendered sweet and clean by simple washing with a sponge. Captain Carr found that these glass pans, such as the one then placed on the council table, being one of those originally sent by him to the Society, could be purchased at sixpence sterling each, at the glass-house, and conveyed to his own dairy 180 miles distant for two-pence more, making the total price only eight-pence. He ordered in the first instance 20 of these pans for trial, and found them answer so well that he soon ordered 300 more. The usual objection to their use was their apprehended brittleness; but glass pans of the thickness those were made of were not found to break so easily as had been supposed. At first he allowed a sum of money to his dairy-woman to cover this breakage; but it was found by experience, that in a dairy of 150 cows, the actual loss by breakage never exceeded 3s. 6d. annually. He had the satisfaction to find that his neighbours gradually adopted these glass pans in their respective dairies. Being anxious not to be foiled in his attempt to place the same advantage within the reach of the humblest cottage farmer in England, he had determined, after finding that the English manufacturers would not think it worth their while to produce the cheap article required, to ascertain at what price the original Ger-

man milk-pans could be imported into this country; and the result of his inquiry was, that they could be supplied in any quantity, and, including all charges of every kind, could be sold in London at a price between one and two shillings. Until the arrangements and calculations were completed the exact price could not be fixed; but it was hoped that it might be reduced to 1s. 6d., or even 1s. 4d., for each glass pan. Captain Carr stated that the great object of the German dairy management was to prevent the milk turning sour, to maintain throughout the milk cellar an equable temperature of 60° Fahrenheit, to place the milk-pans on the floor, to allow the continuous ascent of the air from the floor to the ceiling, and out of the upper windows, and keep the milk as long as possible in the pans before skimming. It was found that the last object was more effectually attained in the glass milk-pans than in any other; and it was supposed that the perfect state of insulation, in which the milk was placed by so perfect a non-conductor as glass, prevented the passage of atmospheric electricity through it, and the production of that acid matter which so constantly resulted under ordinary circumstances on changes of temperature and during thunderstorms. So rapidly indeed did milk turn sour under such circumstances, that the dairy-maids had often been obliged to get up in the middle of the night to prevent it by churning.—Colonel Challoner had been informed that the depth of the milk in the pan ought to be less in proportion to its richness in cream.—Captain Carr had found as the result of thirteen years' experience that not more than four or five quarts of ordinary milk ought to be put in a glass circular pan, such as the one then before the Council, sixteen inches in diameter at the top, and twelve at the bottom.—Mr. Raymond Barker remarked that different cows, according to the locality, were applied by the farmer to different purposes.—Lord Berners inquired how often the milk was skimmed in Germany, and how long it remained before skimming.—Captain Carr replied, that they never skimmed the same milk but once, and then not until it had stood at least thirty-six hours; but the longer it could be kept before skimming, at 60 degs. F., without becoming sour, the greater in proportion, to a certain extent, was the amount of cream obtained.

**FLAXSEED IN REARING CALVES.**—In feeding calves on crushed flaxseed it should be made into jelly, by mixing it with a little cold water, and then pouring it into a boiler of boiling water, in the proportion of one lb. to six or eight quarts of water, and boiled about twenty minutes. When nearly cold it should, if too thick, be diluted to the consistence of thin gruel, by the addition of warm water, and given to the calves milk-warm; it should be given in the beginning to the calves in very small quantities, mixed with their milk, and gradually increased in quantity as they become accustomed to it, and the milk gradually withdrawn, when they may be wholly fed on the linseed jelly without milk. The seed contains much oil; and if given in too great quantity, is likely to purge the calves. The linseed-cake having the oil extracted, is said to be better, on this account, than the pure seed. The calves, according to age, &c., will require from  $\frac{1}{4}$  lb. to  $\frac{2}{3}$  lbs. daily; and it will be an improvement to substitute bean-meal for part of the bruised flaxseed.





NEW OXFORD RAMS.

Exhibited at the Cattle Show of the Royal English Agricultural Society, at Northampton, where they obtained the first Prizes of £40, and £30, as the best Long Woolled Rams, not Leicester. This breed is of very large size, of good form, and have a great propensity to fatten. We give this illustration as a specimen of the breed.

## CIRCULAR.

STR,—The Directors of the Lower Canada Agricultural Society, anxious to employ all the means in their power to promote the improvement of agriculture throughout Lower Canada, would be desirous to obtain the co-operation of influential individuals in every locality, to assist them in their endeavours to accomplish this object. They would also be anxious to put themselves in communication with parties who have introduced a good system of husbandry, and who would be induced to prevail on others to introduce an improved system in their respective localities. They believe that it is by union and example that our intelligent and laborious farmers will be prevailed upon to give up their old and superannuated modes of agriculture, and adopt better, and such as are in accordance with the numerous and important improvements which have been lately introduced. The discoveries and improvements of one locality will be heard of in others where they were not previously known, and may excite a noble emulation among our rural

population, who need only such example and stimulant in order to be equal to any other rural population on this continent, and to take that rank in the community to which they are entitled. They therefore beg to suggest to you, to organize in your parish an Agricultural Committee of the most influential persons, who would be disposed to exert themselves in the cause of Agricultural improvement. These parish Committees might have it in their power to increase the number of subscribers to the Agricultural Journal, and take the duty upon them to collect the subscriptions, and remit the amount to the party who would be authorised to receive them. They might also have a Secretary to record interesting circumstances relating to agriculture, and correspond, when necessary, with the Directors of the Lower Canada Agricultural Society, at Montreal.

If such a Committee should be organized, I would beg of you to have the goodness to inform me of it, and apprise me from time to time, of all that you may conceive would be interesting to the Lower Canada Agricultural Society, and calculated to promote the improvement of agriculture.

With perfect confidence in your zeal and good will, I have the honor to be,

Sir, your most obedient servant,

WM. EVANS,

Sec. & Treas. L. C. A. S.

Montreal, May, 1852.

QUARTERLY MEETING OF THE LOWER CANADA AGRICULTURAL SOCIETY.

Pursuant to written notices, addressed to the Directors by the Secretary, the Quarterly Meeting of the Directors took place at their Rooms in this city, this day, at 11 o'clock.

Gentlemen present:—Hon. Adam Ferrie, F. A. LaRocque, John Yule, J. Hurteau, Dr. Leprohon, John Fraser, P. L. LeTourneux, L. A. H. Latour, J. Gilbault, and Wm. Evans, Esquires.

The Hon. Adam Ferrie, Vice-President, was called to the Chair.

The Secretary submitted several letters and other documents, and the accounts for the last three months were laid on the table.

1st. A memorandum from Major Campbell, suggesting the expediency of sending a copy of the Agricultural Journals, which contained the proceedings at the Agricultural Congress, held on the 10th of February last, to the address of each of the Presidents of County Agricultural Societies, with a request that they would communicate their views on the Resolutions and Reports adopted at the Agricultural Congress to this Society.

It was then proposed by P. L. LeTourneux, Esq., seconded by Wm. Evans, Esq. :—

That copies of the Agricultural Journals, containing the proceedings and Resolutions adopted at the Agricultural Congress on the 10th of February last, be addressed to each of the Presidents of County Agricultural Societies, with a request that they would communicate their views on these subjects to the Directors of the Lower Canada Agricultural Society.—Adopted.

2. Letter from the Hon. James Morris, Postmaster General, in reply to a letter addressed to that gentleman, relative to the postage on the French Agricultural Journal, requesting that postage might not be charged, until a correct list of subscribers could be

made out, to which the Postmaster General very kindly acceded.

3rd. Letter from John R. Lambly, Esq., President of the County Megantic Agricultural Society.

4th. Letter from John Eden, Esq., President of the County of Gaspé Agricultural Society, No. 2.

5th. Letter from H. L. Langevin, Esq., Quebec, a Director of the Lower Canada Agricultural Society, to which the Secretary was instructed to reply, when it would be ascertained whether Mr. Cherrier would arrange for the publication of the Journal.

6th. Letter from M. Bibaud, Esq., Montreal, respecting the publication of the proceedings of the Lower Canada Agricultural Society in other newspapers, previous to their publication in the Agricultural Journal, and recommending, as a member of this Society, that this practice should be discontinued.

It was accordingly proposed by F. A. LaRocque, Esq., seconded by John Yule, Esq., and passed unanimously :—

That all Resolutions and Reports adopted at any future meetings of the Lower Canada Agricultural Society, or of the Directors, shall be handed to the Secretary, and filed by him, with the records of the Society, for future reference, and all such Resolutions and Reports shall be first published in the Agricultural Journals of the Society, before they are given for publication in any other newspaper, unless there is a special order to the contrary, at any particular meeting.

Proposed by L. A. H. Latour, Esq., and seconded by the Hon. Adam Ferrie :—

That each individual member of this Society be requested to consider what books, if any, he can spare from his private collection, and make them more extensively useful by adding them to the Library of the Society, and that he be requested to deposit them as a gift, or under such conditions as he may see fit.—Adopted.

Proposed by John Yule, Esq., and seconded by A. Kierskowski, Esq. :—

That Messrs. LeTourneux and Latour be authorised to accept the terms offered by Messrs. Cherrier and Rowan, to print the Agricultural Journals, by a Notarial Act, for one or five years, and to collect such arrears

as may be due to the Society, on such terms as they may judge fit, with liberty to either party to annul the agreement at the end of each year by giving three months previous notice.—Adopted.

Proposed by A. Kierskowski, Esq., seconded by Dr. Leprohon, and adopted unanimously:—

That the thanks of the Directors of the Lower Canada Agricultural Society are due to L. A. H. Latour, Esq., for his meteorological observations for Montreal, furnished for the Agricultural Journal.

Proposed by L. A. H. Latour, Esq., seconded by John Yule, Esq.:—

That Henry Wager, Esq., of Oneida, S. N. Y., President, and John Delafield, Esq., of Oaklands, S. N. Y., Ex-President of the New York State Agricultural Society, be elected Honorary Members of the Lower Canada Agricultural Society.—Adopted.

Proposed by L. A. H. Latour, Esq., seconded by Wm. Evans, Esq.:—

That J. B. Trudelle, Esq., Secretary of the County of Quebec Agricultural Society, and — Johnson, Esq., son of B. P. Johnson, Esq., of Albany, be elected Corresponding Members of the Lower Canada Agricultural Society.—Adopted.

The Secretary was instructed to address letters to the gentlemen elected Honorary and Corresponding Members of the Society, apprising them of the circumstance.

Proposed by P. L. LeTourneux, Esq., seconded by John Fraser, Esq.:—

That printed circulars in English and French, be addressed to Agricultural Societies, the Clergy and gentry throughout Lower Canada, soliciting their support to the Agricultural Journals, and that these circulars be published in the Agricultural Journals.—Adopted.

This being the first Wednesday of the month, and consequently the day for the meeting of the Committee for the Model Farm at La Tortue, Mr. Ossaye, the superintendent of the farm was present, and submitted his Report for the last month, which was approved, and handed to the Secretary to be filed.

It was then proposed by J. E. Gilbault, seconded by John Yule, Esq.:—

That Mr. Ossaye having demanded of the Committee what mode of culture they would recommend to be adopted on the farm at La Tortue this year, regarding the probability of the cessation of the tenure of the land on the 1st of September next. The Committee decided that Mr. Ossaye should be at liberty to cultivate it to the best advantage for the Society, and for the proprietor.

The business of the day being concluded, a vote of thanks was proposed to the Chairman, the Hon. Adam Ferrie, and passed unanimously. The meeting then separated.

By order,

WM. EVANS,

Sec. & Treas. L. C. A. S.

Montreal, 3rd March, 1852.

The meeting of the Directors of the Lower Canada Agricultural Society took place on Wednesday, the 7th day of April, 1852. Gentlemen present:—Alfred Pinsoncault, P. L. LeTourneux, P. E. Leclere, H. A. L. Latour, J. E. Gilbault, John Yule, and Wm. Evans, Esquires.

P. L. LeTourneux, Esq., V. P., having taken the Chair, the Secretary submitted several letters and other documents, and placed the accounts upon the table.

It was proposed and unanimously resolved:—That, in future, the Directors of this Society meet at their rooms on the second Wednesday of every month, that the Committee for the Model Farm meet at the same time to transact any business connected with the Farm, and that notice of these monthly meetings be given in the Agricultural Journals each time they are published, but, if a special meeting of Directors should be required, the Secretary shall address written notices to each member of the time and place of meeting.

It was also resolved:—That, on the second Wednesday of this month, the 12th instant, the Quarterly Meeting of the Society do take place. J. G. Gilbault and Wm. Evans

were named as visitors to the Model Farm at La Tortue for the month of April.

Mr. LeTourneau reported that Mr. Cherrier declined to undertake the publication of the Agricultural Journals, until he would first have ascertained the actual subscribers; and he, with Mr. Latour, thought it would be expedient to authorise Mr. Cherrier to visit the subscribers, and collect the subscriptions due for the Journals, for which he was to be allowed a commission of twenty per cent., and that arrangement was approved.

Several other matters were discussed by the Directors, and a resolution was proposed by J. G. Gilbault, Esq., relative to the surrender of the Model Farm at La Tortue to the proprietor, Alfred Pinsoneault, Esq., the consideration of which was deferred to the next meeting of Directors.

There being no more business to transact the meeting separated.

By order,

W. M. EVANS,

*Sec. and Treas. L. C. A. S.*

Montreal, 7th April, 1852.

It is actually necessary to the improvement of agriculture that it should yield a reasonable return for the capital and labor employed, otherwise few men of education or wealth will be disposed to embark in the business, with a prospect of loss before them. There is one fact that cannot be disputed, that agriculture is necessary for the support of human life, and whatever the amount of profit or loss to those who practice the business, existence cannot be supported without it. Agriculture is not a speculation to make money by, but an occupation that is as necessary as the air we breathe. Men of wealth and education, therefore, are bound, in duty to the community of which they form a part, to do all in their power to advance the improvement and prosperity of agriculture. We may go to the market and to the store, and with money purchase all that we may require of food and clothing, and, perhaps, without ever thinking of agriculture being the source of these supplies, and that,

if there was any great failure in the products of agriculture, all these sources would fail in proportion. These facts have made such a deep impression on our mind, that we are not disposed to believe in the true patriotism of any public man, or man of wealth or education, who is not a decided friend and supporter of agriculture and its improvement and prosperous condition. There is so much depending in every country upon the abundant products of agriculture, that we are astonished to see this important interest neglected and not estimated at its proper value. If agriculture languishes, and is neither improving nor prosperous as other professions, there must be some cause for this, and it becomes the duty of men of wealth, of station, and education, to investigate the causes that operate unfavorably upon the most important interest in the country, diminishing its profits, discouraging the investment of capital, and hence retarding the progress of improvement. Many men of education and capital, who would be inclined to become agriculturists, are prevented from doing so in consequence of many who have made the experiment having proved unsuccessful and lost capital. These failures, however, can, in many cases, be satisfactorily accounted for, without attributing it to agriculture as generally an unprofitable business under every circumstance. Agriculture cannot be in a healthy state if an unsafe business for gentlemen of education and capital to embark in. It does not say much in recommendation of our agriculture if it is only poor laborious farmers who can succeed by their own work, and whose profits actually consist of a low rate of wages for the labor of themselves and their families. If this was really the case, the condition of the daily laborer would be better than the farmer, because he would incur less risk. We are, however, disposed to hope that such is not generally the case, and that farming may be made more remunerative.

If men of education and wealth should not be disposed to work themselves, they can constantly superintend the work, and employ qualified farmers or foremen, to plough, sow,

plant, &c., and a gentleman who is attentive, and takes pleasure in agriculture, will, by these means, soon become acquainted with the practical art of agriculture, and be perfectly competent to direct every work upon the farm. If this cannot be done in Canada, there must be something wrong in our system that requires a remedy, and should be capable of remedy. It would be a serious matter for regret, indeed, if the business of agriculture, the most necessary, honorable, and healthy occupation practiced by the human race, was only fit for laboring men, who would be satisfied at the lowest rate of remuneration as wages for the labor of themselves and their families, while engaged in this occupation. If working farmers were paid fair remunerative wages for their labor and that of their families, gentlemen farmers could afford to pay the wages of hired labor; and if this is not the case, there must be some injustice done to agriculture to which other professions are not liable. This, we conceive, is a reasonable inference to draw from this state of things. If we believed that it was not possible to obtain a more favorable result from agricultural pursuits, we should never again write one line to recommend it. Agriculturists should have some higher aim and prospect than to be mere "hewers of wood and drawers of water" to the other classes of the community, or perhaps we should say, that they should expect some higher rate of remuneration. Agriculture, if it does not afford a fair remuneration, in proportion to the skill, labor and capital employed in it, should be made to do so, by the removal of every obstacle which has any tendency to prevent it. Let it have fair play and no favor. Let agriculturists have the same means provided for a practical education in their profession, that have always been in the power of other classes. Let them have facilities of obtaining money accommodations on such terms as would be suitable for them, and let their means of access to market be extended as much as possible by railroads and turnpike roads, and then we shall see that agriculture is not a profession that should be despi-

sed. It is time for us to understand that agriculture, which is and must be the basis of the general prosperity of the people of Canada, should not be considered as only a fit occupation for men who have to work constantly for the lowest remuneration that is paid for labor. Education, combined with practical skill, would soon work a wonderful change in the condition of agriculturists. But if we allow ourselves to be persuaded that farming is only a losing game to any one who embarks in it, unless the work is all executed by himself and his family, there is an end to any hope of agricultural improvement with us, or of its becoming a respectable profession for gentlemen. If farming does not offer proportionate encouragement in a country that is so much dependent upon it, something must be out of place. We have a Minister of agriculture now, and there is some prospect that every circumstance connected with the progress and present condition of agriculture will be enquired into, and remedial measures, where required, introduced with as little delay as possible.

We have received letters from the President and Ex-President of the New York State Agricultural Society, Henry Wager, Esq., of Westerville, Oneida county, John Delafield, Esq., of Oaklands, both in the State of New York, and Samuel Walker Esq., Mayor of Roxboro', Boston, in reply to letters which we had addressed to these gentlemen, apprising them of their election as Honorary Members of the Lower Canada Agricultural Society. These gentlemen express the most friendly sentiments towards the Lower Canada Agricultural Society, and their willingness to cultivate intimate relations with them in all matters relating to agriculture. It would be very desirable, and materially tend to promote agricultural improvement in North America, that the New York State Agricultural Society, and the Provincial Agricultural Societies of Upper and Lower Canada, should endeavour to cultivate intimate relations. These Societies have a common object to accomplish in their respective countries, and its accomplishment

would be accelerated by a free interchange of views and opinions between them. We do not see any cause that should prevent friendly relations being maintained between Agricultural Societies of all countries, and if this were the case there would be less difficulty in promoting the objects for which they are respectively organized. The cultivation and management of the land, so as to make it produce the largest possible quantity of the necessaries of the human race, is a laudable object, and a common duty we owe, first to the Creator, and then to our fellow-men.

#### PROPOSED RAILROAD, NORTH SIDE OF THE ST. LAWRENCE.

We were glad to perceive from the reported proceedings of the last meeting of the supporters of this great undertaking, that it is likely to go into operation at no distant period. The highly respectable gentlemen who advocate the construction of this road, is a sufficient guarantee that it would be a necessary and useful work for the people of Lower Canada. This is not the time for the people of Canada to hold back from the execution of any work that is necessary to promote their prosperity. The credit of the country is good, as it is entitled to be. There is no fear that the contemplated road would not pay, and greatly promote the improvement of a vast tract of a fine settled country. If we are disposed to follow the example of our "go-a-head" neighbours of the United States, the Railroad on the north side of the St. Lawrence will be commenced before the end of the present year. The inhabitants should now prepare to make a strong appeal to the Legislature at their next session, and there is no reason to doubt that the Provincial Parliament will sanction any good plan for the improvement of the country. This will be a new Parliament, but we are confident they will be as well disposed to promote the improvement and prosperity of Canada as any former Parliament. Easy and cheap means of communication to every part of our fine country will be the most efficient plan that can be adopted for its amelioration. We have had opportunities of speaking with

parties who reside in distant parts of the country, but who have been brought within a few hours' journey of Montreal by the Railroads already constructed, and it is highly satisfactory to hear the terms in which they speak of the great advantage of this easy and quick means of access to the capital of Canada, although unfortunately we have lost the advantage of having the seat of Government at Montreal for the present. The position of Montreal, however, is such that she cannot fail to become a great and flourishing city, and we believe the first city in British America.

We give insertion to the interesting letter of Mr. Symington, of Point aux Trembles. We, however, dissent from him in many points. We believe that it is a general regulation at Ploughing Matches in the British Isles, to fix the time for ploughing a given quantity of land, and it would be difficult to convince us that we are better qualified in Canada to manage these matters than agriculturists in our Father land, the first agricultural country on earth. But, setting aside the practice in Britain, we conceive that it is a judicious plan in Canada to fix the time for ploughing a given quantity of land at Ploughing Matches. This time should of course depend upon the quality of the soil, and should be amply sufficient to execute the work in a perfect manner. Suppose the time is not fixed, a ploughman may as well take three days to plough a quarter of an acre of land, when it might be readily done in less than three hours. We also think it necessary to fix the size of the furrow slice as near as possible to  $8\frac{1}{2}$  inches wide, by 5 inches in depth, or 9 inches wide, by 6 inches in depth. This proportion, we maintain, will be generally suitable for land selected for Ploughing Matches in this country. Ploughing, done at these Exhibitions, should have some uniformity in the size of the furrow slice, or no farmer, who was particular about the cultivation of his land, would allow his land to be spoiled. At the Provincial Ploughing Match at Varennes last October, it was, we believe, universally

admitted that Mr. T. Hodge had the best ploughed ridge in the field, but there certainly was some difference of opinion as to whether the other prizes were correctly classed according to actual merit. It would have been a matter of some difficulty to have taken the first prize from Mr. Hodge. The next point in which we differ from Mr. Symington is, in regard to wheel-ploughs, and we suppose our worthy correspondent will be surprised to find us state that we have seen excellent ploughing done with the Canadian wheel-plough, and that we are much more disposed to recommend an improved wheel-plough to Canadian farmers, who have to make use of oxen, than any swing-plough that ever was constructed. It is all very well to condemn an implement because we are not accustomed to its use, but we have constantly recommended that the merits of implements so much in use should be fairly tested by experiment before they would be condemned and cast away. We have seen Canadian wheel-ploughs, of good form, with cast iron mould boards, make excellent work, and we maintain that, when ploughing is not properly executed by these ploughs, it is more the fault of the ploughman than the implement. We have the pleasure of the acquaintance of a gentleman who was in England last year to see the Great Exhibition and the Ploughing Matches of the Royal English Agricultural Society, and so convinced was he, by seeing the wheel and swing-ploughs in fair competition, of the superior excellence of the former, that he purchased one of Howard's wheel-ploughs, and brought it to Canada last fall, and we should add that this gentleman is a Scotchman. It is very proper that Mr. Symington, or any other gentleman, should make use of a swing-plough in preference to a wheel-plough if they wish to do so, but this is not a sound reason that the wheel-plough should be denounced as a worthless implement because it is not preferred by them. In the best managed farms in England, there is no other plough made use of, and it would be absurd for us to suppose that the owners of

these farms are unqualified to select the implements that are the most suitable for them. We offer no objection to the swing-plough for those who prefer them, and we have constantly made use of them; but we also have the English wheel-plough, and would prefer it, if we could find men to work it that were accustomed to its use. Certainly the improved *English* wheel-plough would not be so suitable on rough stony land as the swing-plough, but the Canadian wheel-plough answers on any land. A swing-plough is necessary upon a farm for several purposes, but there is not any plough in use that will cut a more straight and even furrow slice, than the improved English wheel-plough, provided the ploughman understands its use; and there is no doubt that they are more easy of draught upon the horses, upon any land in a fit state to be ploughed.

Although we happen to differ from Mr. Symington, we shall be happy to hear from him at any time on subjects referring to agriculture. It is by fair discussion that the public will be able to come to a proper decision on matters submitted to their judgment. As regards ploughs, when men are better instructed in the practical art of agriculture, they will know what implements are the most suitable for them, but we state decidedly that it is not the Canadian wheel-plough that retards or prevents the progress of agricultural improvement in Canada, and could the swing-plough generally supersede it to-morrow, we feel persuaded, that the ploughing would not be nearly so well or usefully executed.

We differ with Mr. Symington in many other of his premises, but shall not discuss them at present.

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The County of Montreal Agricultural Society's show of stallions took place at the cattle-market, Montreal, on Tuesday, the 20th day of April last. There was a considerable number of good draught stallions exhibited, although not many of them possessed any extraordinary merit. John Dodds, Esq., President of the County Agricultural Society, had a fine, strong, black

horse imported from Scotland at the show, but was not entered for competition. We have seen some excellent colts of this horse's get. In the class of horses fit for the saddle, F. H. Hutchins, Esq., of the Current St. Mary, showed a very superior animal, a thorough bred, which deservedly obtained the first prize. This horse is of very perfect form, good color, and excellent action, and we have no doubt would get very good stock for the saddle, provided the mares are of good quality. However superior the horse, we cannot expect a good progeny unless the mares are good. It is very necessary that stallions, exhibited in the class for saddle horses, should have good action, as without this they are useless for the saddle, and we conceive it would be very necessary to have ample space allowed for trying the action of these horses before they would be awarded a prize in this class; indeed it is of great importance that prizes should be correctly awarded to male animals intended for stock getting, because, if they are not so awarded, it has a strong tendency to lead parties into error who are not competent judges of the perfection of animals, and form their opinion upon the judgment of others. We do not offer these remarks from any doubt of the perfect correctness of the awards made at the show of stallions, as we had not an opportunity of knowing to which horses the prizes were awarded in the class for draught stallions. We consider it much to be regretted, that there are so few draught stallions of pure Canadian breed, in the County of Montreal, at present, and every effort should be made to bring some good horses of this breed into the county. For the United States market, no description of horse is more in demand than what is known as the Canadian horse of good form and size; and, for draught in general, there cannot be any better or more suitable horses.

DRAGHT STALLIONS.

1st prize to Mr. François Viau's Draught Stallion, Cœur d'Lion, . . . . .	£5 0 0
2nd prize to Mr. Charles Valois' Draught Stallion, . . . . .	£4 0 0
3rd prize to Mr. J. Hughe's Draught Stallion, Jack. . . . .	£2 10 0

SADDLE STALLIONS.

1st prize to Mr. James R. Hutchins' Thorough Bred Saddle Stallion, Bob Logic, . . . . .	£5 0 0
2nd prize to Mr. Alexander Dube's. . . . .	£3 0 0

Mr. Jeffrey, of Petite Côte de La Visitation exhibited a Cheese Press, two Ploughs, one of a new and excellent plan; also, a root-cutter of novel construction. These articles excited some attention, and are very creditable to Mr. Jeffrey as a manufacturer of agricultural implements.

PARSNIP AS A FIELD CROP.

We have before recommended this excellent root to the notice of farmers, and, as we are now deriving great benefit in feeding stock from half an acre sown last spring, we bring it again under notice. The advantages it possesses over other root crops is a less expensive culture than mangel-wurzel or carrot, as there is no loss of time and labor in storing, no waste in spoiled roots; they will stand over most severe winters, and meets the farmer's wants at a season of the year when most required. Seeds of the most approved variety can be had from Mr. George Shepherd, the Society's seedsman, for 2s. per lb, and two pounds will sow an acre. In Holland this root is superseding all others for field culture.

We have before us the "Schedule of Premiums to be awarded at the Exhibitions of the Montreal Horticultural Society for 1852." The Exhibitions for the year 1852 will take place as follows: The 20th May, 12th August, and the Annual Exhibition the 9th of September. The premiums offered are numerous, and amount to £93 3s. 3d. Amongst these premiums we are glad to perceive four offered for the largest and best collection of Garden Seeds, onion seed, carrot and parsnip seeds. This we conceive to be a very judicious plan to encourage the raising of these seeds in Canada. The Rules and Regulations for the Exhibition should be satisfactory to competitors, as they appear to be based upon perfectly fair principles. We admire that



part of the Rules and Regulations which does not admit any competitor to be awarded more than one prize in the same class, and that no competitor is to receive more than £5 in prizes in 1852. These Rules offer encouragement to extensive competition, and ought to give satisfaction. The Horticultural Society should be supported; we would suppose the citizens of Montreal would be offended if it was said of them that they were incapable of appreciating beautiful flowers, and set no value upon a good assortment and supply of vegetables and fruit; but if they do not support the Horticultural Society, that is so well calculated to encourage the productions of flowers, fruits, and vegetables of superior beauty and quality, we cannot come to any other conclusion.

#### MONTREAL NATURAL HISTORY SOCIETY.

The ordinary meeting was held this evening in the Society's Hall, when the following members were present:—

John Ostell, the President in the chair. Hon. W. Badgley, Messrs. B. Workman, L. A. H. Latour, F. Veit, Major Rudyard, H. Joseph, A. Trudeau, H. Stevens, Rev A. De Sola, Drs. David, Sewell, McCulloch, Fraser, Gibb, and Peltier.

The minutes of last ordinary and special meetings were read and approved.

The President read a letter which he had received from the Right Rev. Dr. Fulford, Bishop of Montreal, expressing his desire to become an Ordinary Member of the Natural History Society.

The following resolutions were proposed by L. A. H. Latour, seconded by Dr. David, and unanimously adopted:—

1. That all the proceedings of this Society, analysis of essays, speeches, discussions, donations, and the name of the donors, be published (until the Society has its own Journal,) in the Agricultural Journal of Montreal, published by the Lower Canada Agricultural Society.

2. Also that the meetings of the Society be called (besides circulars from the recording Secretary,) by public notice in the English and French Journals of Montreal, pro-

vided such notices are free of expense; and that such public notices will contain the title of the subject to be discussed, and the name of the author of the essay,

M. Latour presented to the Society his meteorological tables for March, 1852.

The Right Rev. Dr. Fulford, Bishop of Montreal, was proposed as an Ordinary Member by M. Ostell, and seconded by Hon. W. Badgley.

Major R. Lachlan proposed as an Ordinary Member, by M. B. Workman, seconded by M. Ostell.

S. Jones Lyman, Esq., proposed by Dr. David, seconded by Dr. Gibb.

The following members were balloted for and unanimously elected:—

J. H. Springie, Esq., of Montreal; Dr. G. E. Fenwick, Montreal; Samuel Kneeland, jun., Esq., M. D., Curator of Comparative Anatomy of the Roxton Society of Natural History, was also elected as Corresponding Member of this Society. Proposed by M. Latour, and seconded by M. T. S. Hunt.

The Society then adjourned.

HECTOR PELTIER, M. D.,  
*Recording Secretary.*

Monday, 26th April, 1852.

Gentlemen who have become Annual Members of the Lower Canada Agricultural Society since our last:

Hon. A. B. Viger, J. R. Berthelov, Esq., H. N. R. Masson, Esq., H. L. Beaudry, Esq., Major Lachlan, John Drummond, Esq., and James Hardy, Esq.

FRENCH WHEAT STEEPING.—Mr. Majendie laid before the Council a bundle of wheat from France, as a sample of wheat grown from grain which had been steeped by a method adopted in France for seed-wheat sown over 30,000 acres. This sample exhibited good straw, but furnished with a bundle of ears that were found to be mere husks, almost entirely empty, containing only a few diminutive shrivelled grains. Mr. Majendie was not aware of the particular nature of the steeping employed.

We have received two samples of seed from a respected correspondent, with an enquiry whether either of them were lentil seed. In reply, we beg to state that both are the seed of vetches or tares. Egyptian lentil seed, the

only variety we have seen, is about the same size of the vetch or tare, but is rather flat on both sides, and of reddish brown color. We had some sent to us from England many years ago, and we know that it will succeed well in Canada. The seedsman of the L. C. A. Society, Mr. G. Shepherd, has ordered some from Europe, and expects it this Spring in time for sowing.

#### BREEDING OF ANIMALS.

At the weekly meeting of the Council of the Royal English Agricultural Society on the 10th of March last, a communication was addressed to the Council on this subject, which, we think, is well deserving of attention by the breeders of animals in Canada, and we accordingly copy it for their consideration. It is at a Model Farm that the plan recommended in this article might be adopted, and it would be one of the most useful purposes to which a Model Farm could be applied. It is a matter of great importance to ascertain what is the best method of producing perfection of shape in animals. As regards the size, it will depend mainly upon situation and other circumstances. We have frequently seen large sized animals commended for no other perfection that was in them, but the size of their bones and length of their legs. We would not object to large bodied animals, provided they had perfection of form that would indicate their propensity to yield milk or meat, in proportion to the food they would consume, although we are disposed to prefer moderate sized animals for Lower Canada, as the most profitable. To the experienced eye there cannot be any mistake as to the most perfect form of animals that would yield most profit to their owners, either for milk or beef, for mutton or wool or for pork. Actual profit is determined by the produce of animals over what they consume. We respectfully maintain, that a stock of animals combining perfection of form, suitableness to the situation and circumstances of the country, and yielding the largest return for what they consume, are the sort of animals

which every agriculturist should endeavor to cultivate, whether they be large, middle-sized, or small, and that such stock will always be the most creditable and profitable to their owners, and the most advantageous to the country generally. The following is the communication referred to:—

BREEDING OF ANIMALS.—Mr. Valentine Barford, of Foscoote, near Towcester, in Northamptonshire, addressed a communication to the Council on the importance of attending to those principles which regulate the production of perfectly formed stock. After referring to the steps which the Council had taken for this desirable end, and detailing the discussions on the subject in the Northamptonshire Agricultural Book Club, he concluded his communication with the two decisions arrived at by that Club, and his own general observations.

1. That, although in all cases the system of in-and-in breeding is not desirable in our domestic animals, yet that, when animals properly formed have been obtained, it is the only method to retain that form.
2. That forcing breeding animals of either sex, either by artificial feeding or warmth, is highly detrimental to the health of the offspring.

From the foregoing remarks you may gather that the standard or criterion which I recommend is a certain form or conformation, and is that which Mr. Cline, in his valuable "Treatise on the Formation of Animals," recommends; for, whatever may be the opinion of the multitude, there is but one form right, be it light or heavy (and there never can be two), that admits of health, stamina, and constitution. All the best animals I have seen that have taken prizes the last forty years, whether large or small, approximate to a certain form; and this form I will call the *sine qua non*, or standard; and knowing how to produce this form is the science. If you will make breeding and rearing domestic animals a science, you will soon breed 100 good ones, where you now breed only one. We see the science of agriculture progressing; and why should the science of breeding animals be neglected? I know that the prevailing fashion is for large animals (although fashion has led many astray), but I have yet to learn that they are either the best or the most profitable; and, in order properly to test this, I would very respectfully suggest to the Council the propriety, if they have the funds, of taking a farm of moderate quality, and allowing breeders to send in young stock, to be raised and fed by the Society's servants upon the principle laid down by the late Robert Bakewell—viz., by weighing their food. It would then be soon apparent which paid best for what it consumed; but whether, from local circumstances, you may prefer a large or a small animal, the same science is

requisite to produce the good one. The form of the chest which Cline advocates, approaches as nearly as possible to a circle, and is not that porpoised or inverted form so fashionable in the present day, neither is it that apparent form which is too frequently (in sheep) clipped into a circle, but is that real external form which is an index of the internal structure.

PERMANENT PASTURE.

We copy the following letter from a late number of the *M. L. Express*. We have ever been convinced from experience that pasturing land for a succession of years produced great improvement. We mean, of course, that the pasture should have a good stock of grass upon it, and not be eaten down to the starving point, as is frequently the case in this country. When not pastured too bare, the sun in summer is not injurious to the land, but the contrary. Dry, sandy, and stony soils, are not the best adapted for pasture, in warm and dry seasons, and should not be left for permanent pastures.

ON PERMANENT PASTURE.

TO THE EDITOR OF THE MARK LANE EXPRESS.

Sir,—It is incontestably allowed that a gradual improvement takes place in land whenever it is laid down to permanent pasture. The cause of such improvement arises from the annual decay of the leaves and stalks of the grass, the treading and droppings of animals, the application of manure, the rains which fall upon and percolate through the turf into the soil beneath, and, lastly, the labors of the earthworm. These all combined do, in the course of years, form a stratum of vegetable mould, the thickness of which is proportional to the time laid down.

During that formation of rich mould, a part is carried down by the earthworm, and combined with the soil beneath, which, even if a clay, it enriches; and this very process makes easy the descent of the roots of the grass.

Thus a fresh and fertile soil is formed, fit for a higher system of plants, plainly indicating the tendency of progressive improvement in the order of nature, and placed, too, within the reach of man, who, when requiring food, need only exert those faculties to obtain the same which the goodness of God has so greatly blessed him with.

Before the undertaking is commenced of laying land down to permanent pasture, it is here right to state that the species of grass denominated ryegrass should be rejected, if the owner intends at some future time to break the same up for the growing of cereal plants, because the affinities of this grass and cereal plants are so similar as to affect their produce, which, in

consequence, will fall far short of the crops grown after other grasses.

HENRY ROGER SMITHE.

Eastling.

METEOROLOGICAL RESULTS MADE AT ST. MARTIN, ISLE JESUS, C. E.,

BY CHARLES SMALLWOOD, M. D.,

For February, 1852.

BAROMETER.

	inches.
Mean Reading of the Barometer corrected and reduced to 32.....F.	29,902
Highest do. do., .....	30,304
Lowest do. do., .....	28,781
Monthly Range,.....	1,520

THERMOMETER.

Mean Reading of the Standard Thermometer, .....	21, 9
Highest do. do. Maximum do., .....	43, 0
Lowest do. do. Minimum do., .....	19, 0
(below zero),.....	
Monthly Range,.....	62, 0
Amount of Snow during the month in inches, .....	25,45
Amount of Rain do. do., .....	0,84

Snow fell on 7 days.

Rain fell on 4 days.

Most Prevalent Wind,..... W.S.E.

Least do. do., .....

Most Windy day the 12th day, mean miles per hour,..... 22,22

Least do. do. 14th do. ....

miles inappreciable.

For March, 1852.

BAROMETER.

	inches.
Mean Reading of the Barometer corrected and reduced to 32.....F.	29,952
Highest do. do., .....	30,256
Lowest do. do., .....	28,940
Monthly Range,.....	1,316

THERMOMETER.

Mean Reading of the Standard Thermometer, .....	20, 7
Highest Reading of the Maximum do., .....	58, 0
Lowest do. do. Minimum do., .....	4, 0
(below zero),.....	
Monthly Range,.....	62, 0
Amount of Snow during the month in inches, .....	16,72
Amount of Rain do. do. do. do., .....	2,42

Snow fell on 11 days.

Rain fell on 5 days.

Most Prevalent Wind,..... E.N.E.

Least do. do., .....

Most Windy day the 14th day mean miles per hour,..... 13,59

Least do. do. the 4th day mean

por hour inappreciable.

## AGRICULTURAL REPORT FOR APRIL.

We do not recollect, for several years past, so unfavorable a month of April as the present up to this date; indeed we have not had a warm, sunny day for the first three weeks of the month. As to agricultural operations nothing could be done in the fields. We have seen fine seasons, and good crops succeeded a late spring, but there is always a great inconvenience attending it, that there is not sufficient time to execute the work in the best manner, when obliged to commence very late in April; and this year there will not be much work done before the first of May. The past winter has been a long and severe one, the most so of any we recollect for more than thirty years. It was not from the extreme cold over former winters, but there were very few fine, sunny days, and unclouded atmosphere. It was constantly cold and cloudy, and unlike Canadian winters generally. We did expect, from the early commencement of winter, and its constant severity, that we might have an early spring, but, when it did not change at the Equinox to fine, we gave up the hope of an early spring. The Equinoxial and quarterly changes are those which we have always observed with interest, but we attach no importance to the changes of the moon, nor do we believe that the changes of the moon have any influence whatever upon the weather of our earth. Changes in the weather may take place at the time the moon changes, but what proof is this that it is the change of the moon that produces it. We deny that there are any reasonable grounds for such an opinion. It may be very agreeable for those who believe in the influence of the moon upon the weather to expect, when there is bad weather, that, at the next change of the moon, the weather will be fine, and thus they may always go on expecting, until at last the weather may actually happen to become fine, a day or two before or after the moon quarters, and hence they become confirmed in their prejudices that the new moon, the first quarter, full moon or last quarter, may bring fine weather or the contrary. We have seen it stated, that seed, sown at certain periods of the

moon, would not succeed so well as if sown at other periods. This we also believe to be an error, and, if there should be any difference, it must proceed from other causes rather than any influence of the moon. We should recommend to agriculturists not to be deterred from planting or sowing when the land is ready and weather favorable, whatever may be the period of the moon's age at the time. There is every reason to hope, that, when the spring is fairly come, we shall have a good sowing time until all our work is completed, and no check to vegetation subsequently. If this should be the case we may have a favorable year for agriculture, however unpromising so far. The only thing that farmers can do is to use every diligence to finish the spring work as soon and well as possible.

The Montreal markets have been high, for some time past, for all agricultural products, except hay and wheat. The demand for our products in the United States is the main cause of these good prices, and there is every probability that this demand will continue. Farmers should, therefore, be prepared to supply this demand, and it is well for them to have such a market. If our neighbours would consent to an equitable system of reciprocity, it would, we humbly conceive, be advantageous for both countries. Our principle exports will be raw products, and it is generally considered favorable for a country that imports such products. One fact is certain, that while the United States require those products, she cannot obtain them from any other country on so favorable terms as from Canada, and she will not receive them unless she requires them, or can make a profitable use of them. We may, therefore, make up our minds on the subject, and endeavour to make the most of our position, and raise supplies suitable for the market we can sell in, though we are subject to the great draw-back of the heavy Duty levied on our products in going to that market. Live stock of every description bring good prices, and butter has been unusually high. Barley, peas, oats, and potatoes are at remunerating prices, and the demand is brisk, as it always is when

prices are high. The most discouraging circumstance to farmers at present is the unfavorable state of the weather, unless it soon changes for the better. We must now have a very late spring, and we believe fall ploughing was very backward when the winter commenced last year. This will still more delay the spring sowing. We do not know whether there will be any difficulty in obtaining labor when required, and, from the demand for railroads and other public works, it is quite possible there may be difficulty.

April 26, 1852.

At the last meeting of the Directors, it was resolved that a monthly meeting of Directors take place in future on the second Wednesday of every month, at the usual hour, 11 o'clock, A. M., and the Committee for the Model Farm shall also meet on the same day.

*The Farmers' Guide to Scientific and Practical Agriculture.* By Henry Stephens, F. R. S. E., assisted by John P. Norton, N. A., Professor of Scientific Agriculture, in Yale College, New Haven, and for sale at the book store of Mr. Dawson, Place d'Armes, Montreal, in two volumes. Price from 25s. to 30s. according to quality of binding.

We have repeatedly noticed and recommended this excellent work to agriculturists. No agriculturist who is able to purchase it should be without it, as a book of reference and instruction on every branch of husbandry. There are numerous illustrations of animals, implements of husbandry, farm buildings, &c., &c., all done in good style. The work altogether is very creditably got up by the Publishers, Leonard Scott & Co., New York, and we consider it no small advantage to farmers to be able to procure such a valuable work on moderate terms.

We beg to intimate that Mr. G. H. Cherrier has been authorized to collect the subscriptions due for the Agricultural Journals for the present year in Montreal and elsewhere, and also all arrears due previous to the 1st of January, 1851. The publication of the Journals remains for the present in the hands of the Society as heretofore from the commencement of this year.

*To the Editor of the Agricultural Journal.*

Sir,—I am much gratified by the honor conferred on me by the Lower Canada Agricultural Society, as communicated in your note of the 15th instant.

I pray you to present my thanks to the Board of Directors, with an assurance that it will afford me sincere satisfaction at all times to render every aid in my power to their efforts, on behalf of agriculture.

As a Member of the Board of Directors of the New York State Agricultural Society, allow me to assure you of an ardent and cordial disposition to cultivate intimate relations with your Association; and they will rejoice in every opportunity of combining our respective influences to promote the welfare and interests of the farming community.

I have the honor to be  
respectfully yours,  
J. DELAFIELD.

Oakland, near Geneva, N. Y.

*To WILLIAM EVANS, Esq., Sec. and Treas. Lower Canada Agricultural Society.*

Sir,—I have the honor to acknowledge the receipt of your esteemed favor of the 20th ult.

The very kind manner in which you have been pleased to communicate to me the doings of the Lower Canada Agricultural Society, electing me an Honorary Member of that Society, enhances my obligation.

Be pleased, sir, to state to the Society the pleasure it gives me to learn that my humble name has been placed on its records, and the gratification it will give me at all times to further its interest.

I beg of you to be assured, sir, that it would give me great pleasure to call upon you, should I visit Montreal, and still greater pleasure to see you or your friends at Roxbury, should your business or convenience bring you to Boston.

Will you do me the favor to make my respectful compliments to my friend, Mr. Latour, and believe me to be,

Sir,  
very truly,  
your obedient servant,  
SAMUEL WALKER.

Roxbury, Mass., U. S., February 7, 1852.

## ON THE CULTURE OF OATS.

BY A PRACTICAL FARMER.

We would again repeat, that, in the space usually allotted to an ordinary newspaper contribution, it is impossible to compress our matter sufficiently without injury to our subject. We therefore beg our readers to make every favorable allowance for apparent omissions or short descriptions. We assume to be writing to practical readers, who, we trust, will kindly take up the subject in the thinkings of their own minds, and upon the bearing we desire to give it.

The oat is one of the most useful kinds of grain known to the British Isles, and appears to be indigenous to them, as also to all cold latitudes. It is very extensively used both for human and cattle food, and the oat crop is one of the most universal as well as one of the most profitable under common culture. Speaking generally, the climate of the United Kingdom is well adapted to its cultivation, particularly the northern and more elevated parts of it, as also many rather cold and damp localities.

It is, however, a crop very much dependent upon *climate*. Hence the comparatively small breadth planted with oats in the southern part of England, and the very large quantity grown in Scotland and Ireland. In the latter country, in the year 1847, out of 2,313,579 acres producing corn, 2,200,870 acres were under culture for oats; and this arising more from the humidity and coldness of the climate than any peculiar adaptation of the soil, great as it is, for its beneficial growth. The same remark will apply to Scotland and the north and west of England. It is the influence of climate rather than soil upon which the prosperity of the oat crop mainly depends. We incline to think this the most important part of this subject, in connection with modern improvements in the practice of agriculture; and we would urge our readers to make full inquiry into it, as it may prevent many errors, and consequent losses. Good wheat years are seldom, if ever, good oat years. Cool and wet seasons are good for oats, and bad for wheat; and *vice versâ*. Wheat requires heat and dry weather to ripen its seed to perfection: oats prefer humid and cool weather, and they will ripen where the mean temperature for two months is 50 degrees, and reaches 66 degrees at mid-day for a short time in the summer; wheat requiring a mean temperature, for two months, of 68 degrees, with much hotter weather for a short time, to fully ripen its seed.

These are matters worthy of grave consideration by all oat-growers. We would caution our readers against sowing oats in localities likely to be injured by heat or drought, or on soils liable to burning, or on such thin sands, or chalky downs and gravels, or cold poor clays, as cannot well abide the summer's heat; and we do so solely because we are assured that without a moist summer the crops on such soils and

situations must be bad indeed, if not altogether lost.

The soils best adapted to the growth of the oat crop are the rich loams, the peaty or fern lands, and the alluvial deposits; but it will grow freely on almost every kind of soil capable of general culture. The varieties of the oat are also so many, and varied in their character, that every kind of soil may be supplied with a sort well suited to its nature. Hence, crops are grown on soils and in situations, or again in a climate, but ill adapted to its production. The richer soils require to be sown with the short and stiff-strawed varieties, and the poorer soils with the free-growing, long-strawed, prolific sorts, or such as experience has proved to possess full and luxuriant growth. For the rich loams we would select the "Potato," the "Poland," and the "Friesland Oats;" for the peat or fern, in addition to these varieties, we would add the "Dutch Brew," and "Hopetoun," and the "Sandy Oats" (a new Scotch variety); for the rich alluvial deposits, we would include with the above sorts the common white oats known as the "Short-small" and the "Long-small Oats;" for the poorer soils—i. e., cold clays, light, thin loams, chalky downs, and gravels, loose sands, &c.—we would select the "Long-small," the "White and Black Tartarian Oats," and the "Old Black Oat." These, with the exception of the "Sandy Oat," we have grown, and can speak from experience as to their proper adaptation for profitable cultivation on the soils to which we have attached them. Many other varieties are named, and slight descriptions given of them, by various writers—as the "Angus Oat, Siberian Oat, Georgian Oat, Red Oat, Winter Oat, Dun Oat, Skinless Oat, Old Black Oat, &c., &c." We will give a very short notice of each variety, both of straw and grain:

The "Potato Oat" is a rather early sort. Straw moderate length, bright, and strong. Grain plump, short, white, and generally of beautiful quality, and very mealy.

The "Poland Oat" is a very early sort. Straw yellow, and rather short and stiff. Grain large, plump, white, singly set, and very prolific in mealings.

The "Friesland Oat" is a rather early sort, but not so early as the Poland. Straw longer, bright, and stiff. Grain thin-skinned, plump, and white; yields well, and is mealy.

The "Dutch Brew Oat."—A later sort. Straw rather long, bright, and good; is capital fodder, if well got. Grain short and double-set, plump, white, and yields well; is good horse corn.

The "Hopetoun Oat" is a late sort. A long, reedy, stiff, sharp straw; not good fodder. Grain rather small; husk thick; but bright and prolific kind on good soil.

The "White Tartarian Oat" is a late kind. Straw long, stiff, hard, and brashy, with grain on shagg leaning to its side. Grain long, thin,

spiky, very coarse, but very prolific even on poor soils.

The "Black Tartarian Oat" is similar to the white in all respects except color, and a little coarser straw.

The "Old Black Oat" is rather late. Straw fair length, and thin or wiry; is fair fodder. Grain rather long and thin; weight light; yields fairly.

The "Sandy Oat" is described as a rather early kind. Straw tall and stiff. Grain small; well set in husk; not liable to shed when ripe.

The "Georgian Oat" is described as rather late and prolific, with short straw. Grain large, growing chiefly towards one side, and threshed with difficulty.

The "Angus Oat."—Straw short, weak, and fine; rather late, with pretty plump grain.

The "Skinless 'at" is an early sort, and the grain is free from husk.

Many other varieties to the number of 50 to 60 are named, but we fear we have already said too much on this point, and shall proceed.

"The General Management: The Rotation of the Oat Crop."—We think the largest yield and best quality of grain are produced from "new land," i. e., land broken up from grass or lea. The next in point of yield and quality is land from which the crop of rape or turnips, mangolds, &c., have been fed or carried off. And the next in gradation is the bare or dead fallow; but, objecting, as we do, to bare fallows, and more particularly to the course being extended through the winter, we should decline entering upon its culture in this way. We know, however, that many districts will not produce any other corn crop of equal value, and it therefore demands our notice. The next is after beans, peas, or potatoes: this on good soils only; and, in most other cases, such as after barley or wheat, we consider it such a direct cross-cropping as to be alike injurious to the land and the crop.

The preparation of grass land for the oat crop should be by deep ploughing in the winter or early in the spring, to give time for the herbage and grass roots fully to decay, and for the furrow to be compressed to the furrow sole. As the season for sowing approaches, it should, if the weather is suitable, be rolled down, and left for a few days. The harrows may then be set to work, and drilling immediately to follow. The same course should be pursued with clover leys or seed land, great care being taken to have the furrow well pressed down upon the furrow sole, and that the herbage is sufficiently buried so as to promote speedy decay. By these means much will be done to prevent the ravages of the wire-worm, the grub, and the slug or snail, which usually make such havoc on such lands.

Oats after wheat, rye, barley, canaryseed, or other similar cropping, we consider highly detrimental; and it must be under very extraordinary circumstances that we could sanction even an occasional crop under such a course, and then only after several ploughings or scari-

fyings and the application of manure. The oat crop is an exhausting one; and such is its nature that it will appropriate to itself every particle of ingredient in the soil which would not readily be taken up by other plants without renewed tillage: on this account it must be highly judicious to future culture. Von Thier says: "This grain has such vigorous organs that they can dissolve and appropriate nutritious particles which would be of no use to any other kind of corn: they even appear capable of dissolving insoluble acid humus." If such is indeed its character, it ought never to follow a grain crop, but be confined to the turnip, grass, or pulse rotations.

The usual time for sowing oats is the month of March or the beginning of April; if sown earlier, as in the autumn or even in February, the cold winds or late frosts are apt to do the crop serious injury, and frequently destroy the plants altogether; or, again, if deferred till May, the drought of summer is sure to destroy much of the crop on many soils, by actually burning up the plant, in others by preventing its usual growth; but should the summer be a moist one, the crop then runs to straw, and the yield of grain is very defective. It is universally allowed that the oat crop requires more moisture than any other in the soil; and it is very important that it arrives at its proper growth for the formation of its grain before the parching heat of summer is in full force. If the summer does prove a moist one, its safety against luxuriant and excessive growth may readily be provided for. We recommend in such cases, where the crop is becoming rank, coarse, and likely to go down, that it be "topped" either with hook or scythe: indeed our practice is to have our crop looked over every season, and the heavy or laid places lightened: it makes the sample of corn more even in size and color. We prefer this mode of dragging the crop with a horse-rake, as is a more general case. The great thing is to commence in time, or before it does fall to the ground from excessive luxuriance. Dragging injures the stems, by breaking down some and crushing others; and the horse tramples much down besides the trouble of getting off the raking. We frequently top our oat crop twice: this renders it strong, and the yield is immense.

We think the decaying toppings conduce to promote the fuller formation of grain in the plant, acting in some degree as a top-dressing.

The quantity of seed sown should not be great. It was customary to sow from five to six imperial bushels to the acre: experience has proved this to be a most erroneous practice. We now drill from eight to fourteen pecks per acre, and find that amply sufficient. We vary our quantity according to the richness of the soil, the safety from wire-worm, grub, &c., the period of sowing and the manner in which we are able to get in the seed. Every practical man can form a fair judgment on these minor matters. We also prefer drilling at nine-inch intervals; it gives

room for the better action of atmospheric influence, and hoeing and weeding. We have a decided objection to rolling or harrowing the crop after it has appeared above ground. We have frequently proved this to be wrong; and, in consequence, presume to caution our readers against its practice. We aim to put this crop in well, to get the land in fine tilth, to so leave the seed either harrowed finely down or rolled, so as to be able with facility to hoe it without materially disturbing the plant or soil. It is easily injured at the season proper for hoeing. The roots are all young and tender (not like the wheat-plant, which has stood a rough winter); they are soon broken by deep hoeing, which also lets in the drought. More care is requisite in these little matters than is generally thought necessary. A word as to harvesting the crop. We usually wait till the crop is fully ripe, preferring the early ones to shake rather than cut the late ones too soon. This course, we know from experience, secures the largest yield at a trifling loss. We mow the crop with the common scythe. The mower is followed by his mate, who ties the swathe as it is mown into sheaves of moderate size; sometimes "mowing out," sometimes "up to the standing," as appears at the time best. It is set into shocks, or stookes, and the land carefully raked. When ready for carting, it is brought from the field to the stack-yard, and stacked in stacks of convenient size, generally holding about 15 to 18 cart-loads; the shape round, and the width at top three or four feet wider than at bottom, so as to make it safe from the drippings of the thatch.

THE LENTIL.

We spoke, in the *Journal of Agriculture*, for July, 1851, of that ancient vegetable—so often mentioned in the Bible, so prolific, and, above all, so nutritious—which M. Guillerez, a French professor in our city, has acclimatised by his unwearied effort, at great cost, and without any other reward than the gold medal of the Highland and Agricultural Society. Whilst rolls of tobacco and starch have received prize medals from the juries of the Great Exhibition, a new food, introduced into our country at the very moment when the potato seems to have lost its vitality, and threatens to disappear from the vegetable kingdom, as many plants have done before from exhaustion and over-growth—the lentil, that made an attractive article of the admirable collection exhibited by Messrs. Lawson & Son, as well as in a separate form, was passed unnoticed.

In 1851, M. Guillerez has seen his disinterested efforts repaid, for the fourth time, with a success beyond his most sanguine hopes, from a spot sloping to the north, and exposed to all the winds, at the back of South Queensferry. He has gathered 2½ bushels (167lb. weight), 5½lb. only having been sown, and the rain in August having spoiled a great part of the crop, which was then budding. The lentils sown between rows of beans have produced, on an average, 30, 25, and one row even as much as 61, for 1; and, besides, he had a splendid crop of beans. Between the rows, propped by stakes, he had planted cabbage,

cauliflower, salsify, beet-root, leeks, which all thrived most beautifully. The lentils were so prolific, that, if it had not been for the rain that damaged them to a great extent, they would have produced more than a hundred-fold. Indeed, one of our most eminent noblemen (Lord Rosebery), who saw them drying on ropes in large bunches, could not refrain from expressing his astonishment at the abundance of the crop. The provost of South Queensferry has grown the lentil successfully in an open field, and sown broadcast; but Mr. Dundas, of Dundas Castle, putting too many beans among his, they were choked. However, he is to try them this year on a large scale. M. Guillerez tried a small spot as forage; he cut them twice, and they grew to the height of four feet.

Here is a recipe for cooking lentils. The plainest and best mode of preparing them is to steep them in cold water an hour or two; then to withdraw them in a goblet with enough of water to cover the surface, a little butter or a bone, some salt, and a little parsley. Place the whole on a slow fire. They must boil slowly, and you must take care to add water enough to keep the surface covered, but merely covered. You may boil them with ham, bacon, sausage, or merely with water and salt, to prepare them afterwards with onion *à la maitre d'hôtel*. In schools, barracks, or large boarding establishments, they are often merely boiled in water and salt; then allowed to cool, and the water to run off, and in which state you dress them with oil and vinegar, &c., like a French salad. When the lentil is bruised or ground into meal, it makes an excellent "purée" with wild-fowls or roasted game. It is prepared also like peas, for soups, dumplings, puddings, &c.

SPRING IS COMING!

(From the *Dublin University Magazine*.)

Spring is coming—Spring is coming!  
 With her sunshine and her shower;  
 Heaven is ringing with the singing  
 Of the birds in brake and bower;  
 Buds are filling, leaves are swelling,  
 Flowers on field, and bloom on tree;  
 O'er the earth, and air, and ocean,  
 Nature holds her jubilee.  
 Soft then stealing, comes a feeling  
 O'er my bosom tenderly;  
 Sweet I ponder, as I wander,  
 For my musings are of Thee.

Spring is coming—Spring is coming!  
 With her mornings fresh and light;  
 With her noon of chequered glory,  
 Sky of blue and clouds of white.  
 Calm, grey nightfalls, when the light falls  
 From the star-bespangled sky,  
 While the splendour, pale and tender,  
 Of the young moon gleams on high.  
 Still at morn, at noon, and even,  
 Spring is full of joy for me,  
 For I ponder, as I wander,  
 And my musings are of Thee.



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- 200 do. White Globe Turnip,
- 200 do. Belgim White Field Carrot,
- 200 do. Attringhasor “ “
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March 1st, 1852.

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**T**HE Secretary and Treasurer of the Society is in attendance daily, from ten to one o'clock.

The Library has already some of the best works on Agriculture. Also, the Transactions of the Highland and Royal Irish Agricultural Societies, the London Farmer's Magazine, the Transactions of the New York State Agricultural Society, and many other British and American Agricultural Periodicals which are regularly received. The Agricultural Journal and Transactions of the Lower Canada Agricultural Society, both in English and French are to be had at the office from the commencement in 1848, up to the present.

All communications in reference to the Agricultural Journals from the first of January, instant, to be addressed post paid to Wm. Evans, Esq., Secretary of the L. C. A. S. and Editor of the Agricultural Journals.

Members of the Lower Canada Agricultural Society are respectfully requested to pay up their annual subscriptions immediately.

**WM. EVANS,**  
*Secretary and Treasurer, L. C. A. S.*

1st January, 1852.

Copies of Evans' Treatise on Agriculture, and the supplementary volumes both in English and French to be had at the office of the Society with complete files of the Lower Canada Agricultural Journal for the years 1844, 1845 and 1846.

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